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Robert Keeley,
Editor

Find a festival

Heard of Alejandro Chaskielberg? Neither had I until I discovered his images at the last Ballarat International Foto Biennale. One of the biggest photo festivals in the country (and the biggest in a regional centre) the BIFB reached its tenth anniversary last August. The month-long show, staged every two years in the regional Victorian city, is now an established part of our photographic calendar, and despite the huge amount of work involved in getting it up and going, and the constant battle for sufficient sponsorship, it remains a shining light in this country's photographic milieu. Which brings me, in a roundabout way, to the work of Chaskielberg, who was one of the Core exhibitors at BIFB this year. The Argentinian's unique portfolio at the festival featured moonlit scenes of timber and river workers along the Parana River delta in his home country. The ethereal set pieces, with unusual lighting and a mix of blur and stillness, were highly artistic, yet photojournalistic images. They were fascinating and original – a combination which seems ever harder to find in these days of image overload. One of the great attractions of festivals like the BIFB is the opportunity they afford local enthusiasts to see the work of internationally prominent photographers. At BIFB you may not like what you see, but with so many exhibitors (21 core exhibitors and 100 fringe

exhibitions this time around) more than likely you'll find something to inspire you. The importance of this as a starting point for creativity can't be underestimated. The mix of inspiration and perspiration that's peculiar to almost any creative endeavour is particularly relevant to photography. As we've said many times, to achieve first-class results in this pursuit requires a unique combination of technical understanding, along with a high degree of creative lateral thinking thrown in. If anything, the rise of digital technology, especially in post-production work, has increased the level of input required in both these areas. Contrary to the sales pitch that most digital technology manufacturers spruik (and many mobile phone shooters liberally apply) these days, to get the best out of photography, you don't just point and shoot, even though increasingly more people attempt to do just that. Today there are so many millions of images floating around in the digital realm, as well as in printed form commercially (though strangely much less so in the world of personally printed images) that the 'shotgun' approach of firing away at everything which moves is almost seen as standard procedure. The shotgun style of photography is now hugely popular and has come to dominate the social media space. But the most successful shooters (and not necessarily just those who make money out of the

activity, which in itself has become increasingly difficult as everyone with a digital kit thinks they're a 'professional') have had to apply their creative thinking in new and interesting ways. One of the best ways to fire up your creativity is to visit as many festivals as you can, and the BIFB is just one really good place to start. ☀



PHOTO: ALEJANDRO CHASKIELBERG

LEFT

Dark Passage, by Alejandro Chaskielberg, was part of the Argentinian's core exhibition at this year's BIFB.

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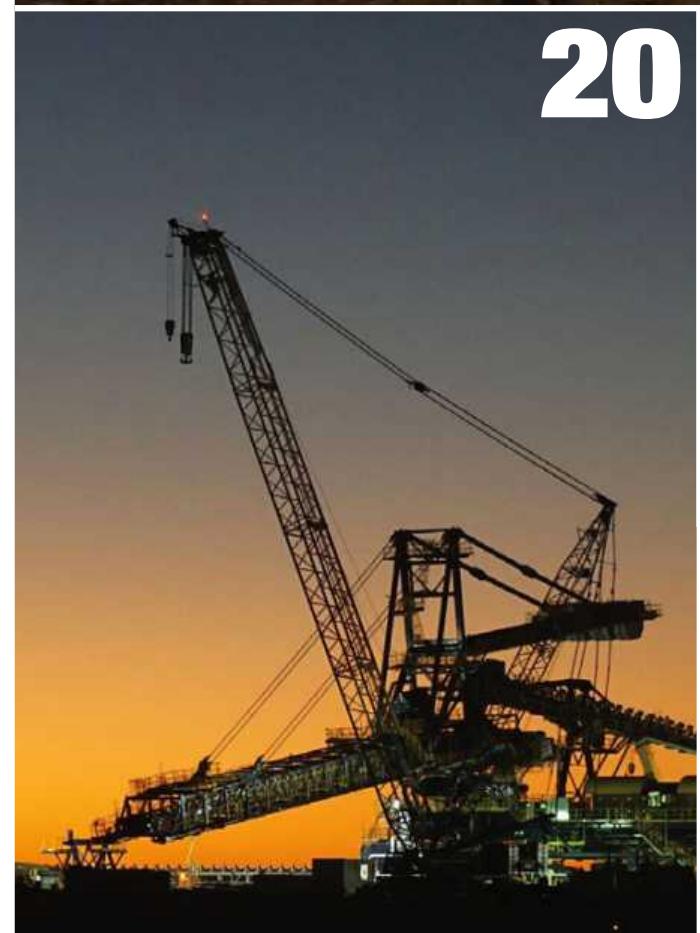
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Nikon has produced a relatively compact, but highly effective 300mm telephoto lens which takes advantage of a Nikon-designed Phase Fresnel (PF) element, similar to the Fresnel lens technology used in lighthouses and stage lighting. Anthony McKee takes it for a spin.

**54****20**



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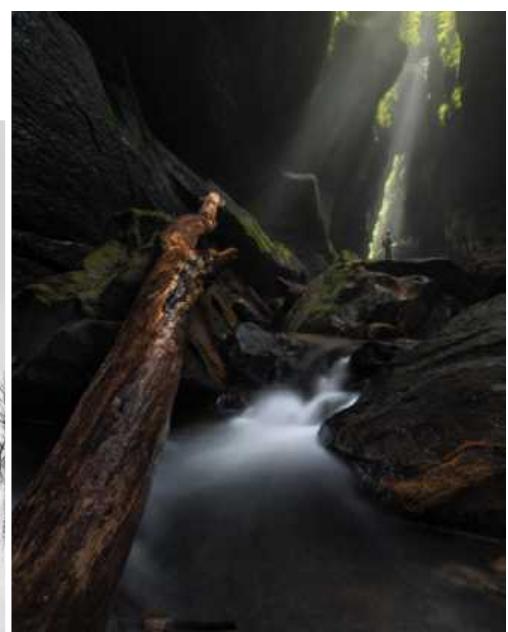
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Rocky Creek Canyon, Blue Mountains, NSW. Photo by Jake Anderson.
Nikon D800, 16-35mm f/2.8 lens @ 16mm, 6s @ f/7.1, ISO 100, tripod.
Two exposures blended; one for the person, one with a higher ISO and faster shutter speed. Contrast, dodge and burn.

BEHIND THE LENS



WEB: SEE MORE OF DREW HOPPER'S
REMARKABLE PORTFOLIO.



Midnight Express

**PHOTOGRAPHER:
Drew Hopper**

Abandoned places create plenty of photo opportunities. Especially at night, you can get eerie and interesting shots. Old buildings and decaying trains are my favourite subjects to shoot under these circumstances. One night the air was cold and the sky was clear with a plethora of stars, so I decided to make the most of my time and head inland, away from any light pollution. I had always wanted to shoot this old vandalised train carriage which had been left to rest on a no longer used track in the countryside near Glenreagh on the northern New South Wales coast. On arrival I stepped out of my car and gazed up into the night sky, which was simply mind blowing. I haven't seen that many stars in a long time, so I headed straight to the railway track to find the carriage with the Milky Way blazing right above. I couldn't have asked for a better night! Everything was so crisp and rich. This was a fairly straightforward shot to get. I made it from a low angle, shooting up towards the Milky Way, which just so happened to be in the right place. I used a high ISO rating and a wide aperture of f/2.8 to capture the stars with a 30-second exposure without getting any blur from a longer shutter speed. During the exposure I used my LED torch to paint with light the train carriage so I could create more dynamic range against the starry sky. Back in my digital darkroom I processed the image in Adobe Lightroom and increased the clarity and contrast and made the Milky Way more visible by selectively brightening the white levels. Once I was satisfied with the RAW adjustments I moved the image into Photoshop to add the finishing touches; colour correction, noise reduction and sharpening. All in all it was a successful night – well worth staying out in the cold for until 4am to get a few new shots!

**CANON 6D, 16-35MM LENS @ 19MM, 30S @ F/2.8,
ISO 1600, TRIPOD & FLASHLIGHT**

Quick snaps

Getty launches 'legacy' collection

To celebrate its 20th anniversary, stock library Getty Images has released a collection of some of its most memorable images, along with the stories behind a number of the images as told by the photographers who captured them.

The images and video interviews, which can be found on the Getty Images iOS app, mark some of the most defining pictorial moments in the last 20 years of world history.

A cross section of featured images include Brent Stirton's haunting photo of a deceased Silverback Gorilla being transported out of the jungle by an Anti-Poaching unit, John Moore's emotional image of a woman mourning her fiancé who was killed in Iraq and Michael Jackson's last show rehearsal at the Staples Center in 2009.

The Getty Images iOS app is available free at the Apple App Store.

 WEB: READ MORE ABOUT THE GETTY IMAGES LEGACY COLLECTION

BELOW

Conservation rangers work with locals to evacuate the bodies of four mountain gorillas killed in mysterious circumstances in Virunga National Park, East Congo, July 24, 2007. Photo by Brent Stirton, Getty Images.



The Alchemists: Rediscovering Photography in the Age of the JPEG

A new exhibition at the Australian Centre for Photography (ACP) in Sydney examines the return of analogue photographic techniques in contemporary art. Born of darkroom experimentation and mixed with innovative digital photography techniques, the exhibition features works by artists from Australia, Japan, Thailand and New Zealand in a collaboration between the Australian Centre for Photography, The Australian National University, The University of Sydney, and Sydney College of the Arts.



In addition to the exhibition, a symposium will be held at the Sydney College of the Arts while a masterclass will be held at The Australian National University (ANU) in conjunction with the Australian National Gallery (NGA) collection.

The Alchemists: Rediscovering Photography in the Age of the JPEG is at the Australian Centre for Photography (257 Oxford Street, Paddington, NSW) until 6 December 2015.

 WEB: VISIT THE ALCHEMISTS WEBSITE.

TOP

Flight Dream, 2015, by Joyce Campbell. Courtesy of the artist and Two Rooms Gallery, Auckland.

ABOVE

Untitled Walk #2 (vague silence), 2014, by Sarah Mosca. Courtesy of the artist.

Olympus to launch new firmware for E-M1 and E-M5

Olympus is set to improve the video capabilities of its professional OM-D E-M1 and enthusiast E-M5 Mk II cameras with new firmware updates planned for November.

Firmware version 4.0 for the E-M1 will add 24 and 25p frame rates to the camera's existing Full HD video recording capability, while a new video stabilisation algorithm is expected to produce better stability in handheld operations. Other improvements include new focus stacking and focus bracketing modes to improve depth of field for close-up imaging; a new silent electronic shutter mode; 4K time-lapse video recording; and a new viewfinder mode that uses HDR technology to

simulate the look of a traditional optical SLR viewfinder.

Firmware version 2.0 for the E-M5 Mk II introduces a new flat picture mode to make video colour grading easier and Linear PCM sound synchronisation with the Olympus LS-100 professional digital audio recorder. Olympus says on-board video sound recording quality has been improved with a new digital noise filter.

The new firmware will be available as a free download in November.

 WEB: VISIT THE OLYMPUS AUSTRALIA FIRMWARE DOWNLOAD PAGE.





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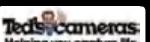
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VIDEO: TONY NORTHRUP
REVIEWS THE NEW A7S II.

Sony A7S II delivers higher sensitivity, records 4K internally

Sony has announced the A7S II, the latest iteration of its video-oriented, full-frame A7S camera series. The new model adds a range of pro-style movie functions including the ability to shoot 4K video internally with full pixel readout and no pixel binning. Because information from all pixels is used without line skipping or pixel binning, the camera can maximise the power of the full-frame sensor to produce 4K movies with higher image clarity and negligible moiré. Full pixel readout without pixel binning is also employed when shooting Full HD movies which means that it collects information from approximately five times as many pixels that are required to generate Full HD and condenses the information to produce extremely high-quality movies.



There's also an expanded ISO range from 50 to 409,600, a new in-body 5-axis image stabilisation system and the option to shoot Full HD video at a fast frame rate of 120 fps. The autofocus system on the A7S II has been upgraded and now offers 169 AF points and viewfinder magnification has been increased, up from 0.71 to 0.78x (roughly 38.5 degrees in diagonal field of view), to show clear images across the entire display area.

The new A7S II will be available this month. Australian pricing has not been announced, though in North America the A7S II is expected to sell for around US\$3000 body only.



MindShift Gear BackLight 26L

WEB: [MORE INFO ABOUT THE BACKLIGHT 26L](#)

MindShift Gear has unveiled the BackLight 26L, a new backpack for outdoor photographers with the capacity to hold a DSLR, a long zoom lens, four to six standard-size lenses, flash and typical camera accessories. Alternatively, the bag can accommodate two large mirrorless cameras, five to seven lenses and a flash. There are also separate dedicated compartments for a 10in tablet and 15in laptop and up to 9L of daypack capacity for personal gear such as food and extra layers of clothing. As well as conventional zippers and openings, a back panel opening system makes it possible to quickly access gear without taking the pack off. That means you can get to your gear without having to put the bag down on potentially wet or dirty surfaces.

Other features include a tripod-monopod mounting system, two large water bottle pockets, adjustable dividers, a rain cover and interior mesh pockets.

The MindShift Gear BackLight 26L will be available in October 2015 for US\$249.99 in a choice of two colours; charcoal and 'greenfield'.

**LEFT**

The MindShift Gear Backlight 26L can carry a DSLR, up to seven lenses, a laptop and more.



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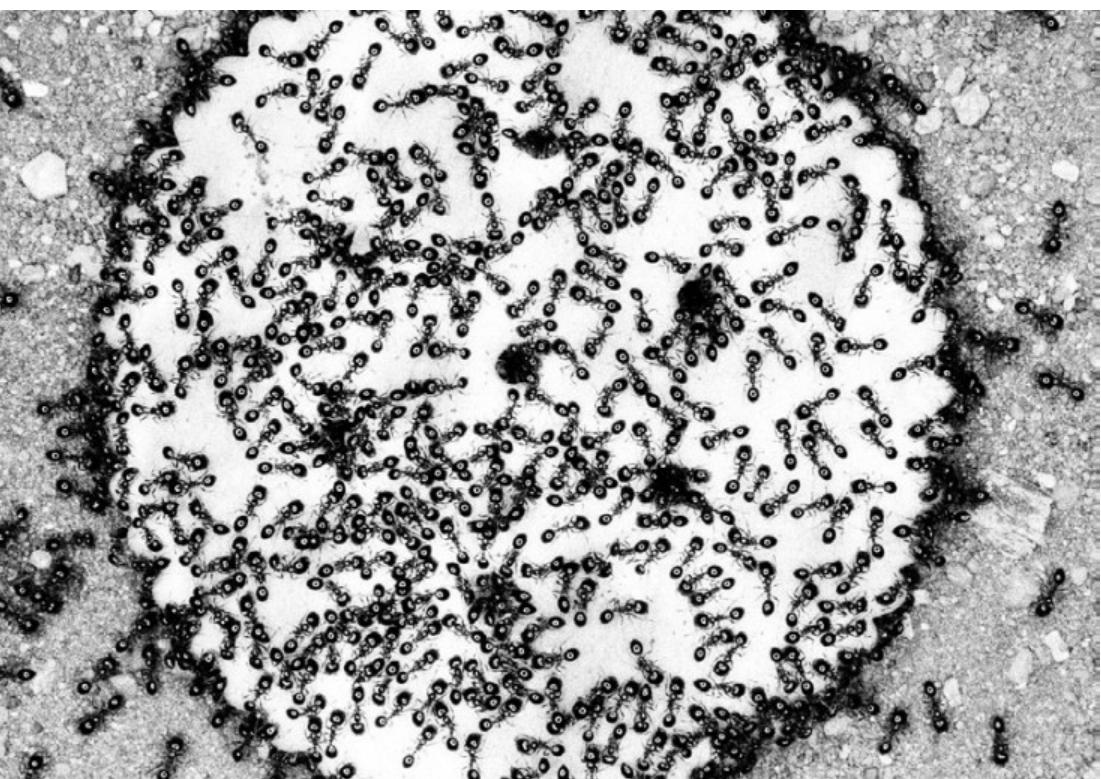
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Trent Parke: The Black Rose

Trent Parke's *The Black Rose*, which was the subject of an ABC documentary earlier this year, is showing at Stills Gallery, Paddington, until 7 November.

"*The Black Rose* started in 2007 as an attempt to excavate my own histories, reflecting on a night when, at the age of 12, I witnessed my mother die of an asthma attack while my dad was at his squash night," explains Parke. "As a result I blanked out those first 12 years of my life and much more. After sidestepping the issue for 27 years, a chance incident forced my hand and I began writing and taking photographs as I sought to get these memories back. Autobiographical in nature, these letters and photographs narrate the story of my life, past and present, but more importantly pose universal questions relating to our very existence. Why are we here, where are we going, and what happens next?"

Trent Parke is considered one of the most innovative and challenging photographers of his generation and was the first Australian to become a full member of the renowned Magnum Photo Agency. While he began his career as a press photographer, these days his work is more likely to be found in galleries than in newspapers. His images are held in major institutional collections, including the National Gallery of Australia, Museum of Contemporary Art, National Gallery of Victoria, Art Gallery of NSW, Artbank, Magnum London and Magnum Paris.

ABOVE

Ants on a Jatz cracker biscuit, Dampier, Western Australia, 2011, from *The Black Rose*. Photo by Trent Parke.

VIDEO: TRENT PARKE

DISCUSSES THE EVOLUTION OF HIS REMARKABLE WORK, THE BLACK ROSE.

New iPhones offer 4K video and 12mp stills

Apple has added two new iPhones to its line up, replacing the iPhone 6 and 6 Plus with the 6s and 6s Plus. While the new flagship phones look identical to their predecessors, the camera has been upgraded with a new image sensor which can produce 12-megapixel stills and 4K video (up from 8mp and 1080p video on the 6 and 6 Plus). The user-facing camera has also been upgraded from 1.2 to 5 megapixels and includes a new Retina Flash feature which momentarily makes the display brighter to illuminate selfies in low light. Another new feature is Live Photos which allows users to capture several seconds of video either side of a still image. The resultant moving image can be set as your phone's lock screen or wallpaper, or shared with other Apple devices.

Other features include 3D touch, stronger glass and casing and a new A9 chip which Apple says delivers 70 percent faster CPU and 90 percent faster GPU performance than the A8 chip in the 6 and 6s.

The iPhone 6s and 6s Plus are available in gold, silver, space grey and rose gold.

Pricing starts at \$1079 for the 6s 16GB model and goes to \$1529 for the 6s Plus 128GB model.



RIGHT

Apple's new iPhones, the 6s (left) and 6s Plus, use a new imaging sensor that can capture 12-megapixel still images and 4K video.



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Travel lens choices

QI'm heading to Croatia and I was wondering if you knew anyone who has been there as I'm not sure what type of lenses to take, how many, and what I might need. I'm taking a Canon EOS 60D SLR. My current lenses are a 11-16mm Tokina f/2.8 for landscapes, and for general walkabouts an 18-135mm STM Canon zoom lens. I do have a 28-300mm Tamron, which is

a nice lightweight lens to carry, but I'm thinking about the weight of a Canon 100-400mm. Would I use it or need it in these countries, and what about the weight factor of carrying it around?
Malcolm Way, Picnic Point, NSW.

ABy all accounts Croatia is particularly beautiful and spectacularly scenic. What you might shoot will depend on where

you'll have the time or options to get to. Perhaps the culture and traditional way of life will appeal to you more than making the effort to get to the top of a mountain for a sunrise. I recently stumbled on this website: <http://net.hr/magazin/putovanja>

Although it's in Croatian, the captions on each image on this site are in English. A nice snapshot of the country's scenery, history and many achievements is provided. This would be more useful to you, in many ways, than simply searching for images online tagged "Croatia". Check it out!

True, your Canon 100-400mm would likely prove too heavy to be carrying around "just-in-case" for all-day sightseeing. After the first few days you would be most likely choose to leave it in your hotel.

As always, the best lens is the one you have with you at the time. There is also the practical consideration of maintaining the carry on (cabin) bag allowance, which might be limited to only seven kilograms (check this on your airline tickets for all the sectors you'll be travelling through).

Certainly a long telephoto lens (eg; a 300mm setting on your 100-400mm zoom) would come in useful for those occasions when you weren't able to get close enough to fill the frame for a faraway landscape feature, or discrete pictures of people at a distance. Such long lenses also have the advantage of flattening the perspective of the subject, which can be aesthetically pleasing.

Although the added "reach" of a long telephoto lens would potentially be helpful in some situations, you'll be able to do a certain amount of cropping on the images from your 18-megapixel camera in post-processing. There would also be the possibility of carrying a lightweight 2x teleconverter (like a Kenko Teleplus – check its compatibility with your existing lenses). With its APS-C sized sensor, your camera produces a lens crop factor of 1.6x. Thus, at maximum zoom, your Stepper

LEFT

Metadata (literally, “data about data”) is very useful to ascertain what settings you used to get the shot. However, having the wrong date and time can be problematic.

OPPOSITE PAGE

Beautiful Dubrovnik, Croatia. Zoom lenses make life easier for travel photographers.

Motor lens is effectively 216mm (in 35mm “full-frame” terms).

I have a Tamron 28-300mm, which unfortunately doesn’t get much use as in my view its image quality is not as sharp as my two Canon L-series lenses, or even my other Canon consumer lenses, which each cover a more limited zoom range. Also, the direction of rotation for zooming is opposite to that of the convention for Canon lenses, which means I am often not able to capture quickly-moving action as my “muscle memory” defaults to what I have previously used!

Your very wide-angle Tokina would likely be used much less often than your Canon 18–135mm. It’s wise, though, to always have a spare lens handy in case your main lens sustains damage from a hard bump or moisture ingress.

Regarding your destination, one successful professional photographer once stated that the most difficult city in the world to photograph was Sydney, which was his home town. Why? Simply because it seemed too familiar, although of course, it’s filled with endless potential for a tourist. Beauty is where you find it! Ultimately you’ll have to make the final decision based on all the considerations discussed here, knowing that whatever you choose will always be a compromise. Your photographic style will have to adapt to make use of the tools available to you at the time.

EOS 60D date & time

Q I’m using a Canon EOS 60D DSLR camera and I have an issue with the metadata being stored when I shoot with it. The ‘date taken’ entry appears two to three years earlier from when I have actually shot the image! The ‘giant panda’ image I have supplied was taken in China on April 8, 2015, but the metadata says it was taken on November 14, 2012. The ‘Valencia, Spain’ image was shot on November 12, 2013, but the metadata indicates June 18, 2011. Why is this relevant? Well, most photographic competitions have a time limit included in the conditions of entry, such as “The image must have been shot in the last 12 months”. If the metadata date is incorrect I run the risk of having my entry disqualified. How can I resolve this? *Michael Considine, Eltham, Vic.*

A Thanks for the two sample images you have supplied from your camera. Was the time and date set correctly when you first

bought the camera? Presumably the EXIF metadata (specifically, for the date and time) previously did “stick”, or remain valid after correctly setting these originally. See: “Setting the Date and Time”, p. 30 of the ‘EOS 60D Instruction Manual’.

Have you attempted to set the time and date again recently? If it is not holding in between removal and subsequent replacement of the rechargeable Lithium-Ion battery, then likely the internal backup (lithium) button cell is no longer functional (it may be too low a voltage).

This is possible because the EOS 60D was first manufactured in 2010. Has the rechargeable Lithium-Ion battery regularly been left out of the camera body whilst it’s being charged, or do you have a second (spare) battery which you quickly swap over each time?

Also from p. 30 of the EOS 60D instruction manual: “If you store the camera without the battery or if the camera’s battery becomes exhausted, the date/time might be reset. If this happens, set the date/time again.” Note that, in the absence of the rechargeable battery, and with a non-functional back-up battery, the date and time information will be lost, as it is stored in the memory which requires power and needs to be “real-time” (eg; the seconds or fractions of a second need to keep ticking over, unlike, say, the storage area for the continuous file numbering sequence).

For most other models within the Canon EOS line (eg; the 50D,

a predecessor to your camera), the back-up battery is contained in a little sliding drawer housed in the same chamber as the rechargeable Lithium-Ion battery.

Although your instruction manual does mention the back-up battery (“Do not short-circuit, disassemble, or modify the battery pack or back-up battery...”), nowhere is there any specific details mentioned about its type, location, or replacement given. That’s because, unfortunately, on the EOS 60D the back-up battery is not a user-replaceable part. It’s located on the camera’s main circuit board, which would require pulling it apart to access it (definitely not for the squeamish or inexperienced). You’d want to get a quote for replacement from Canon’s service department. An inconvenient workaround, of course, is to remember to set the date and time on each occasion you switch on the camera before taking pictures. Yet another possibility is to adjust the Copyright, IPTC information, etc, as an automated part of the process of copying the files from your memory cards onto your computer, such as when you’re importing images using Lightroom software.

At the risk of seeming flippant, as evidence of your bona fides for a competition you may enter, you might want to take a picture where you’re standing in the scene holding the front page of that day’s local newspaper, in case there was ever a query! ☀

Have a question?

Photography got you stumped? If you have any queries at all relating to photography or digital imaging please email our correspondent Prashphutita Greco at qanda@australianphotography.com. Please include your question, along with your name, suburb, state and phone number. Prashphutita will try to get back to you with an answer within a couple of weeks.





Darran Leal



Patience and timing

You can have all the best gear and technical knowledge in the photographic world, but **Darran Leal** says it still won't help if you don't have the ability to successfully play the waiting game.



WEB: SEE MORE OF
DARRAN'S WORK.



In photography, patience and timing can make a great difference to your end result. I have hundreds of images of birds from all over the world ‘eating things’. It is what they do. But this is one of my favourites as it is less common to see ‘an African kill’ with a bird and a scorpion. At the time of writing I’m about to take another group to explore the flowers of South Africa and I bet I won’t get another chance like this. So, when you’re getting into the field, luck and the right techniques will help you to increase the chance of shooting such unique opportunities. However, once the opportunity presents itself, the real key to capturing a great

image is actually patience and timing.

I used a long telephoto lens (200-400mm with a 1.4x converter) which offers a 560mm focal length and my favourite ‘keep it simple’ mode - Aperture Priority. With the aperture opened to the widest setting of f/5.6, my shutter speed was the fastest offered for ISO 400 in the given light – 1/3000s – which was great for freezing movement. With these simple but very effective settings, I could concentrate on shooting that special moment when the egret was neutralising the scorpion’s sting.

So how did this unique opportunity occur? We were driving along a dirt road in a reserve in South Africa and



**CLOCKWISE
FROM ABOVE**

A long telephoto lens, simple techniques, patience and timing allowed me to capture a unique sequence of this egret neutralising the sting of a scorpion. 200-400mm lens @ 400mm with a 1.4x converter, Aperture Priority, ISO 400, 1/3000s @ f/5.6, Processed in Adobe Lightroom, hand held. (Effectively 560mm on a 35mm sensor.)

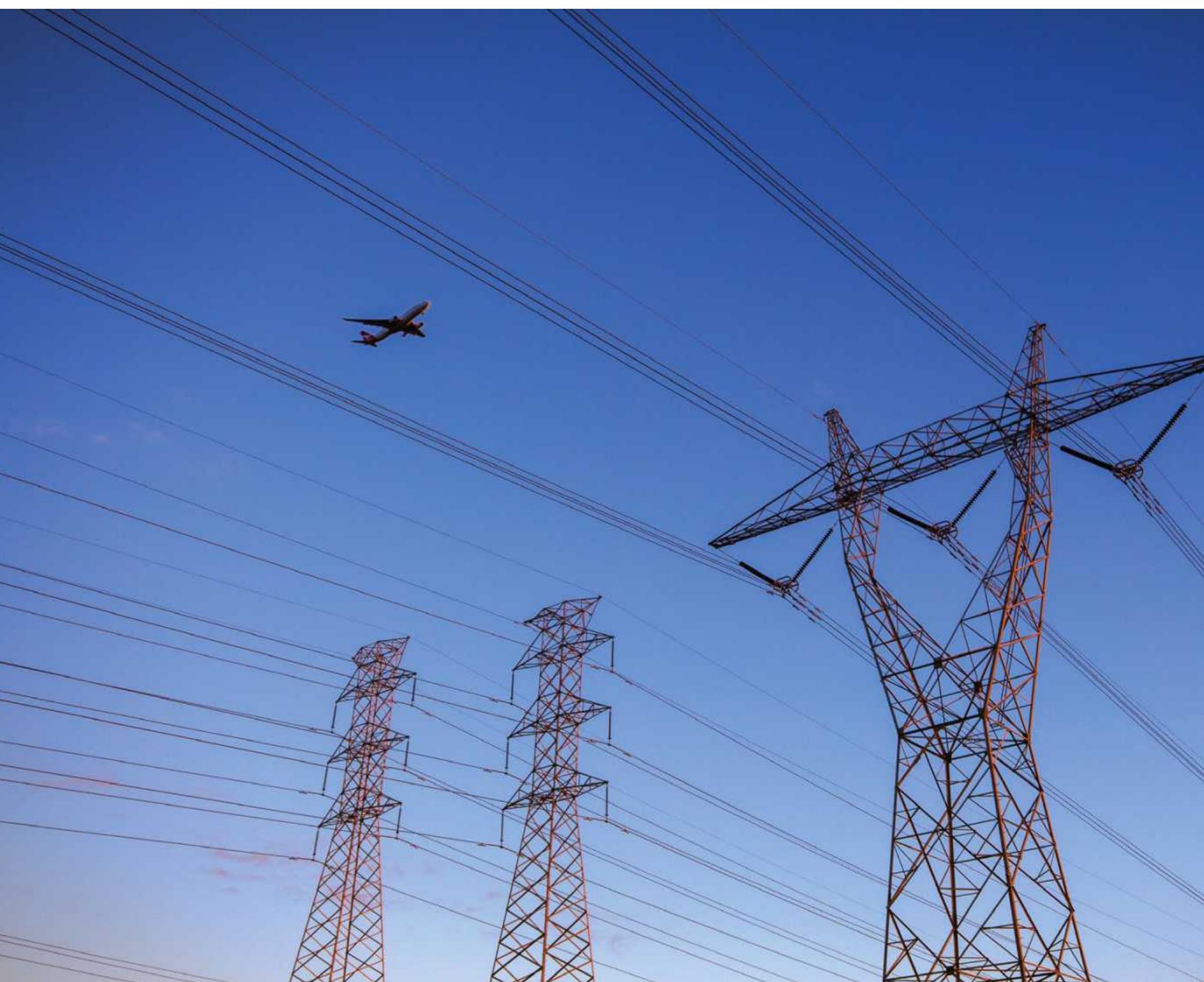
I noticed a flock of the birds landing in a field. My small group initially stayed in our vehicle, though they finally ventured out carefully so as not to scare away the flock. In the short time we watched and photographed them, the egrets caught several scorpions and other insects. Quite simply, it was amazing!

Shoot creatively... ☺

Darran and Julia Leal's company World Photo Adventures, is celebrating 26 years of incredible photo tours around the world. If you're interested in a professionally guided small group experiencing unique photo adventures go to: www.worldphotoadventures.com.au

Your best shot Technology

This month's category proved to be one of our most challenging as we put your creative instincts to the test by asking you to turn technology into a visually interesting photographic subject. Here are the top images from this category.





WINNER

PHOTOGRAPHER

Will Rampling-Bauer

EDITOR'S COMMENT

In this category we were looking for different approaches. We received a lot of images of computers and mobile phones, but not too many showing technology in an external setting. However, this image from Will Rampling Bauer juxtaposed two fundamentally important technological elements with these power poles and an aircraft in the distance. The photographer says, "I took this driving home from Melbourne airport. I was in the passenger seat and the sun was setting directly to my right and it created a nice warm light. I felt the plane really gave the towers a sense of context and showed how we have used technology to not only make life easier, but to achieve things which are otherwise not possible." We liked the composition and the creative thinking, and for those reasons this shot is our winner this month.

DETAILS

Canon EOS 700D, Sigma 10-20mm @ 20mm, 1/60s @ f/10 ISO 200. Lightroom used for minor levels adjustments, sharpening, spot removal and slight cropping.

HIGHLY COMMENDED PHOTOGRAPHER **Geoff Vickridge**

EDITOR'S COMMENT

We were impressed with this outdoor set piece of a giant Pilbara, WA, mining rig taken during a spectacular sunset.

Geoff Vickridge says, "I wish I could say that I spent some time composing this image, but it came as a 'light-bulb moment' while driving. I stopped the vehicle and took the shot all within a minute. The halogen lights on the site and the setting sun provided the necessary light. These behemoths had fascinated me for some time, but it was the sunset which gave me the extra element. The site is near Port Hedland in the Pilbara region of Western Australia." Sometimes simply having the ability to recognise a stunning scene is the key to making a strong image, and with this outstanding silhouette Geoff Vickridge has achieved just that.

DETAILS

Sony A6000, Sony 16-50mm f/3.5-5.6 lens @ 50mm, 1/50s @ f/5.6, ISO 3200. Auto contrast and cropping in Picasa 3.

YOUR BEST SHOT

HIGHLY COMMENDED

PHOTOGRAPHER

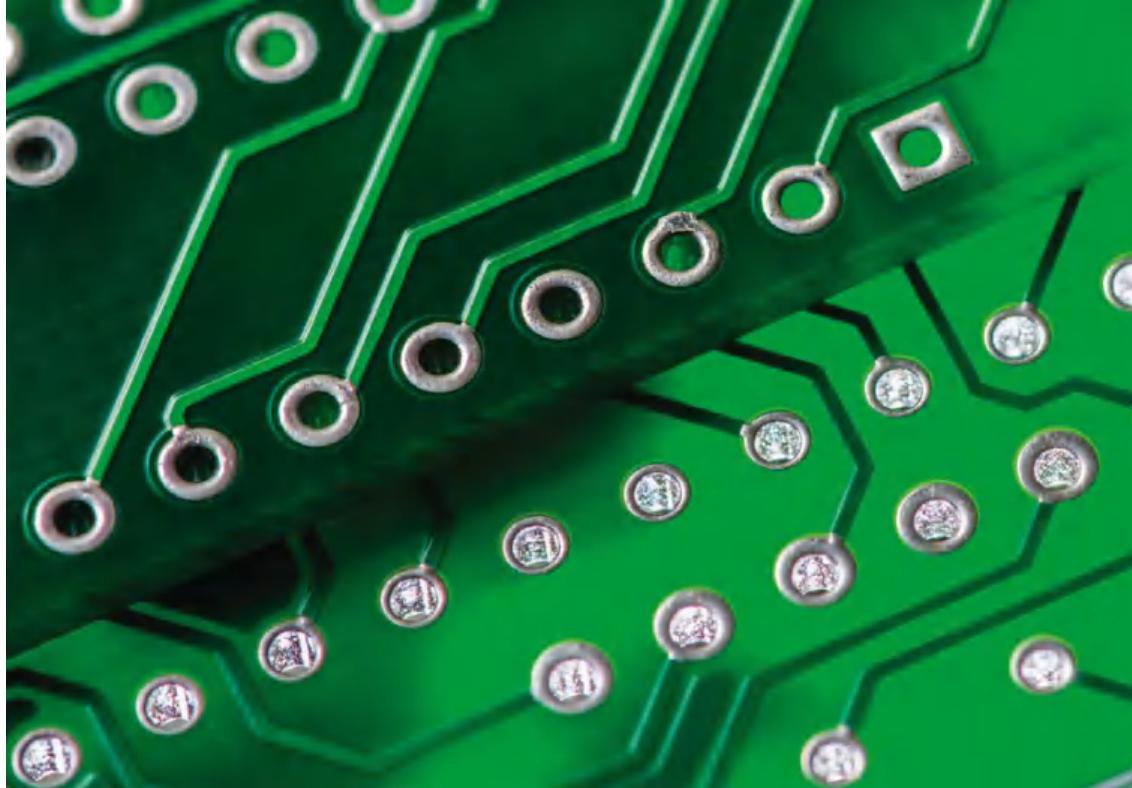
Paul Knie

EDITOR'S COMMENT

We received quite a lot of images, in a range of guises, displaying the internal set ups of technology and computers. That puts a premium on creating something which stands out, and in this example below from Paul Knie we thought he achieved that objective by creating the effect that the viewer is peering into the workings of a big electronic system. The blue tone adds to the cold ambience of the scene, and the blurred foreground helps create an impression of depth. As well, the scene is sharp where it needs to be. Overall, a nice effect, worthy of commendation.

DETAILS

Canon EOS 650D, zoom lens @ 20mm, 1/8sec @ f/4.5, ISO 400. The photo was taken hand held and braced against the ventilation louvers. They are the blurred flares at the top and bottom of the image.



PHOTOGRAPHER

Armando Crollini

HOW I DID IT

Two printed circuit boards were shot while suspended between two platforms and stacked on top of each other.

DETAILS

Nikon D7100, Tokina 100mm f/2.8 macro lens, 1/30s @ f/16,

ISO 100. Two Nikon speed lights were used for lighting, one underneath the printed circuit boards and the other bouncing from the ceiling above. A tripod was used and contrast, vibrance and shadow adjustments were made in Adobe Lightroom.





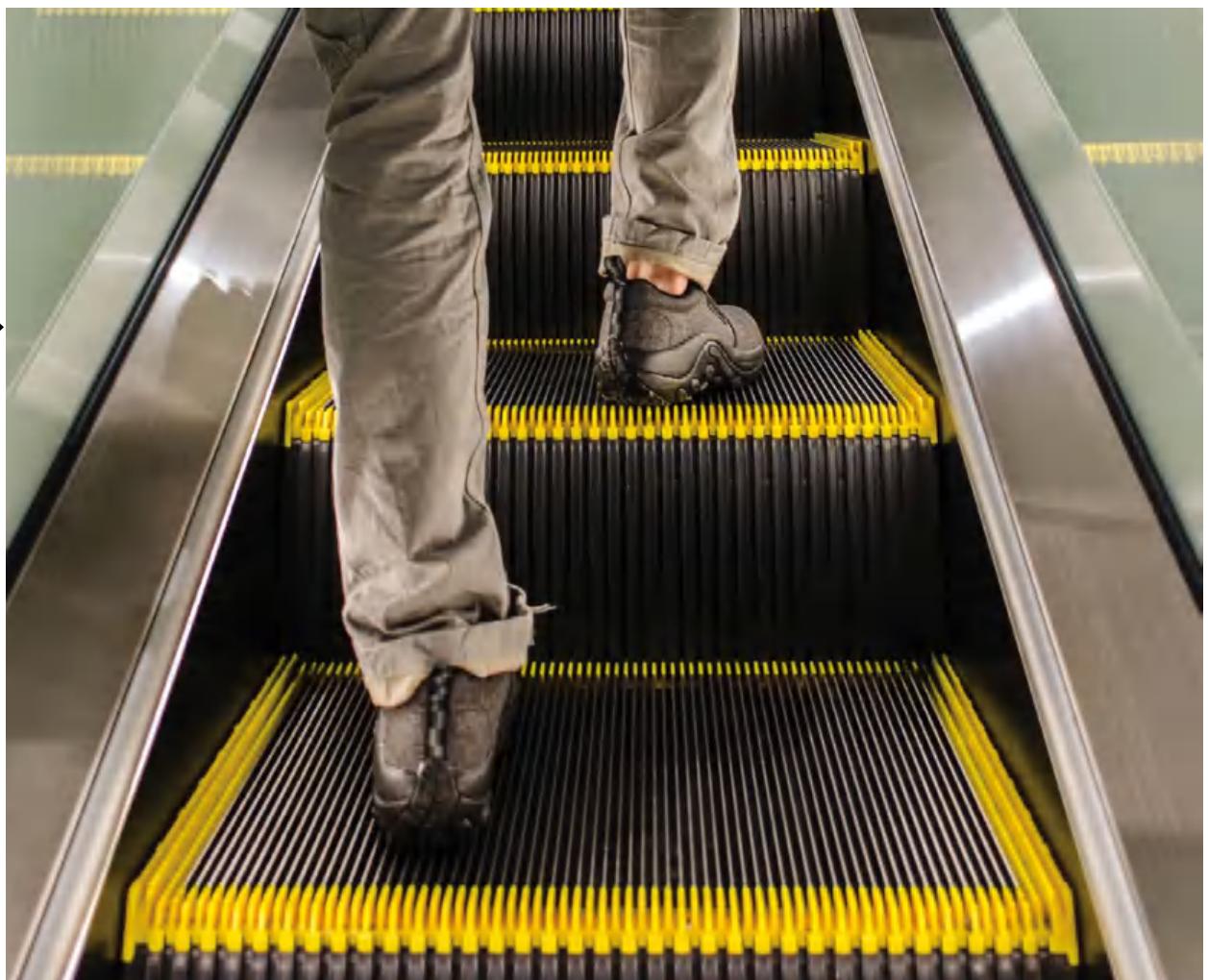
PHOTOGRAPHER
Jaideep Chaudhary

HOW I DID IT

This picture was taken during a trip in the outback of NSW. I was in the remote settlement of White Cliffs, in the central west. As I was going around the town I came across this solar power station. It wasn't open at that time, but I still managed to get this shot from over the fence!

DETAILS

Nikon D90, Nikkor 55-200mm f/4-5.6G AF-S zoom, 1/125s @ f/9, ISO 200.
Some boosting of colour, cropping and saturation in Picasa 3 software.



PHOTOGRAPHER
David Trembath

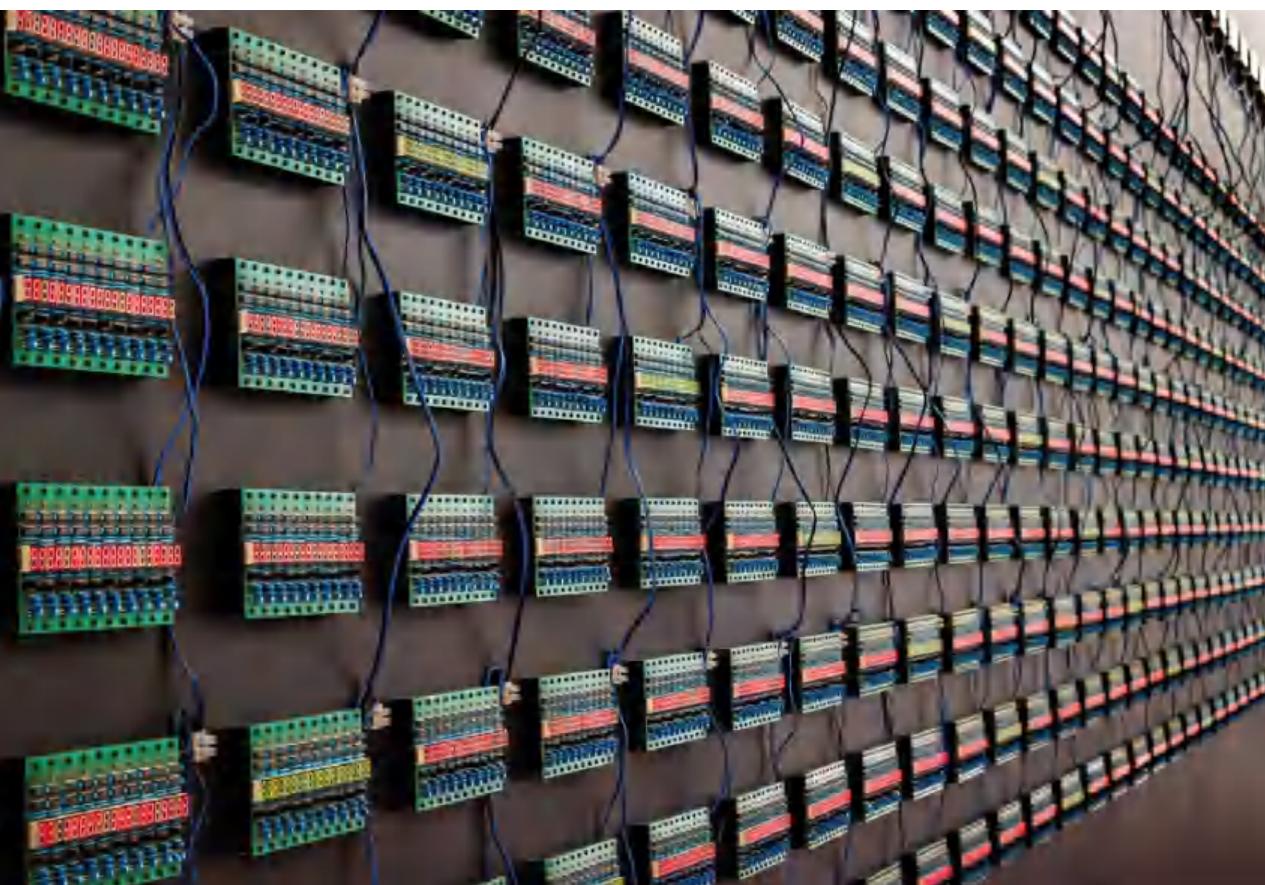
HOW I DID IT

The photo is a broad interpretation of the theme, but I've always liked the composition and the vivid nature of the technology of the escalator contrasted with the mild dishevelment of the passenger. It was taken in one of the Tokyo Museums of Modern Art with the much overlooked Nikon Coolpix A – a camera I have come to admire for its straightforwardness – on the fly.

DETAILS

Nikon Coolpix A @ 18.5 mm, 1/30s @ f/2.8, ISO 400. Processed from RAW in Lightroom, cropped, clarity and minor tone adjustment.

YOUR BEST SHOT



PHOTOGRAPHER

Martin Snicer

HOW I DID IT

This picture was taken at an exhibition at The Art Gallery of NSW. The display caught my attention with the long rows of circuit boards planted on the wall, something which I had not seen before.

DETAILS

Canon EOS 70D, Canon 50mm IS f/1.8 lens, 1/60s @ f/10, ISO 3200. The image was modified using Adobe Lightroom with adjustments to highlights, shadows and clarity, including a bit of sharpening, noise reduction and vignetting.

PHOTOGRAPHER

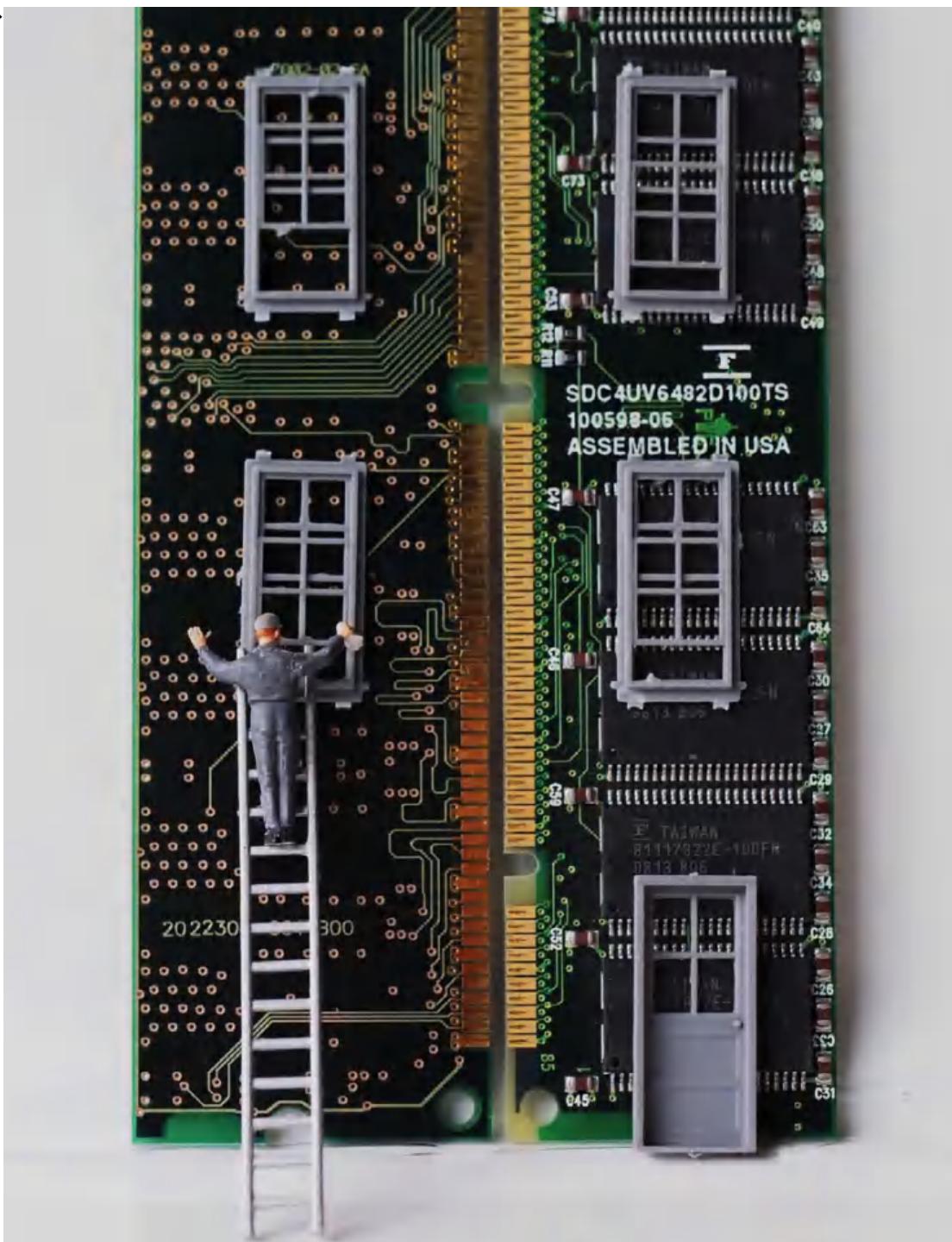
Susan Shanta

HOW I DID IT

I set up a couple of small circuit boards with a few windows. The window cleaner is doing his best to keep things clean and not letting those viruses in!

DETAILS

Olympus EM5, 60mm macro lens, 1/400s @ f/5. Adjustments in Photoshop to contrast and cropping.



How to enter

Your Best Shot is open to AP subscribers and APS members. To enter an image in the comp, check the competition themes and instructions below and email your best image to yourbestshot@australianphotography.com

UPCOMING COMPETITION THEMES

JANUARY ISSUE

HEIGHT

Deadline: Oct 31, 2015



FEBRUARY ISSUE

LINES

Deadline: Nov 30, 2015



MARCH ISSUE

HEAT

Deadline: Dec 10, 2015



APRIL ISSUE

THE BEACH

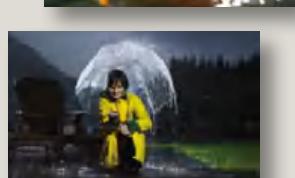
Deadline: Jan 31, 2016



MAY ISSUE

RAIN

Deadline: Feb 29, 2016



EMAIL DETAILS

- Send your entry to yourbestshot@australianphotography.com
- Include the name of the competition theme you are entering in the email subject line, for example 'Rain' or 'Abstract'.
- Please include the following details with your entry: your name, image title (if there is one) and 100-200 words about how you created your image. Please also include technical details including camera, lens, focal length, shutter speed, aperture, filter (if used), tripod (if used) and details of any software manipulation.
- Entries may be submitted up to midnight on the evening of the specified deadline.

IMAGE REQUIREMENTS

- Images must be saved in JPEG format.
- Ideal image size is between 30 and 42cm (on the longest edge) at a resolution of 300 pixels per inch (ppi). A JPEG compression of 9/12 (or 75%) will keep images to an acceptable email size without noticeably reducing image quality.

CONDITIONS OF ENTRY

- To enter, you must be a subscriber to *Australian Photography* or be a member of the Australian Photographic Society (APS). See inside for subscription offers.
- The judges' decision is final and no correspondence will be entered into.
- Employees of Yaffa Publishing (and freelance contributors) are not eligible to win the prize.
- Submitted images must have been taken no more than 24 months before the competition deadline.
- The prize is subject to change without notification.
- You must have an Australian street address to be eligible to win the prize.
- By entering you grant Yaffa Publishing the right to publish your image in *Australian Photography* and at www.australianphotography.com for the purposes of promoting the *Your Best Shot* competition. Copyright remains the property of the photographer.

Win a new EIZO ColorEdge CS230 Photo Editing Monitor valued at \$1375!

Thanks to our good friends at EIZO, Will Rampling-Bauer has won a gorgeous ColorEdge CS230 Photo Editing Monitor valued at \$1375.

While your camera can capture trillions of colours, most computer monitors are only able to show a fraction of that colour range – around 16 million colours. The ColorEdge CS230 has a library of over 278 trillion colours and can display more than one billion of those simultaneously resulting in smoother colour and tonal gradations, truer images and much more detail.

For around the price of a high-quality lens, the 23in ColorEdge CS230 Photo Editing Monitor lets you see subtle details and a richness of colour that would otherwise be hidden from view. There's also automatic colour adjustment with a built-in self-correction sensor and ColorNavigator software.

That's why EIZO monitors are used and recommended by Australia's leading photographers and are the only monitors used for judging the Australian Professional Photography Awards (APPAs).

More info: www.eizo-apac.com



The screenshot shows the Australian Photography website homepage. At the top, there are links for 'ABOUT US', 'SIGN UP FOR E-NEWSLETTER', 'ADVERTISE', 'SUBSCRIBE', and 'GLOSSARY'. The main banner features the Olympus OM-D E-M10 camera. Below the banner, there's a section for 'Competitions' with a link to 'ENTER HERE'. The text says 'THE BEST IMAGE WILL WIN A \$250 MOMENTO GIFT VOUCHER'. There's also a 'momento' logo and a small image of a photo book. The bottom of the page has a footer with legal information and a copyright notice.

PHOTO COMPS ONLINE

If you're looking for more great photo challenges, you'll find plenty at www.australianphotography.com including our monthly photo competition which includes a new brief each month.

To enter, go to www.australianphotography.com and click the 'competitions' tab.



Every masterpiece begins with a canvas.

What is a Graphics Monitor?

While your camera can capture trillions of colours, computer monitors can only show around 16 million of these. By contrast, an EIZO ColorEdge Graphics monitor is custom built for photographic editing. A wide gamut and a palette of over 278 trillion colours reveal natural tones and subtle details that would otherwise be hidden from view. The enlarger lens of the 21st century, an EIZO ColorEdge Graphics Monitor is designed to faithfully reflect your editing changes and display your files as they truly are.

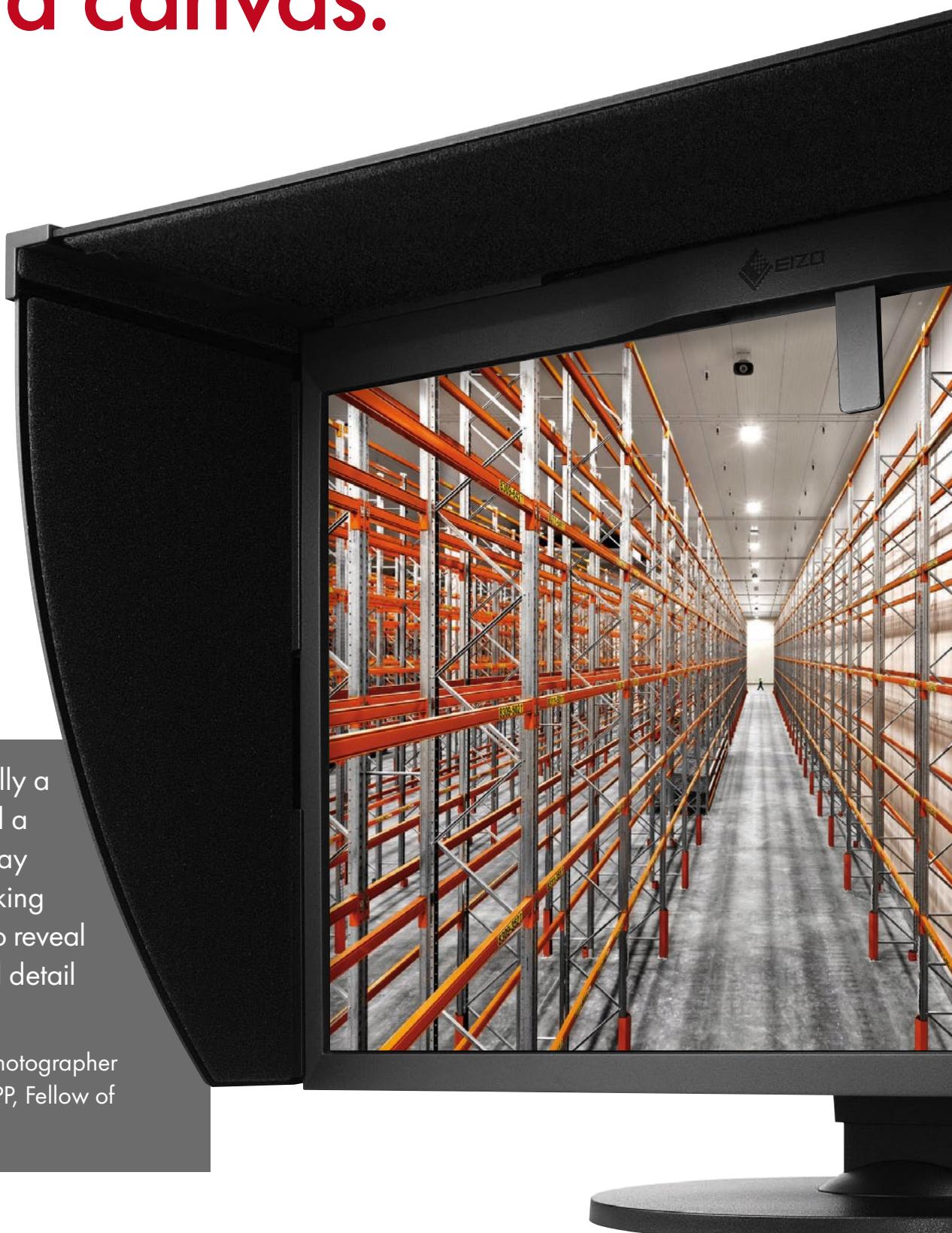
To find out more:

www.eizo-apac.com 



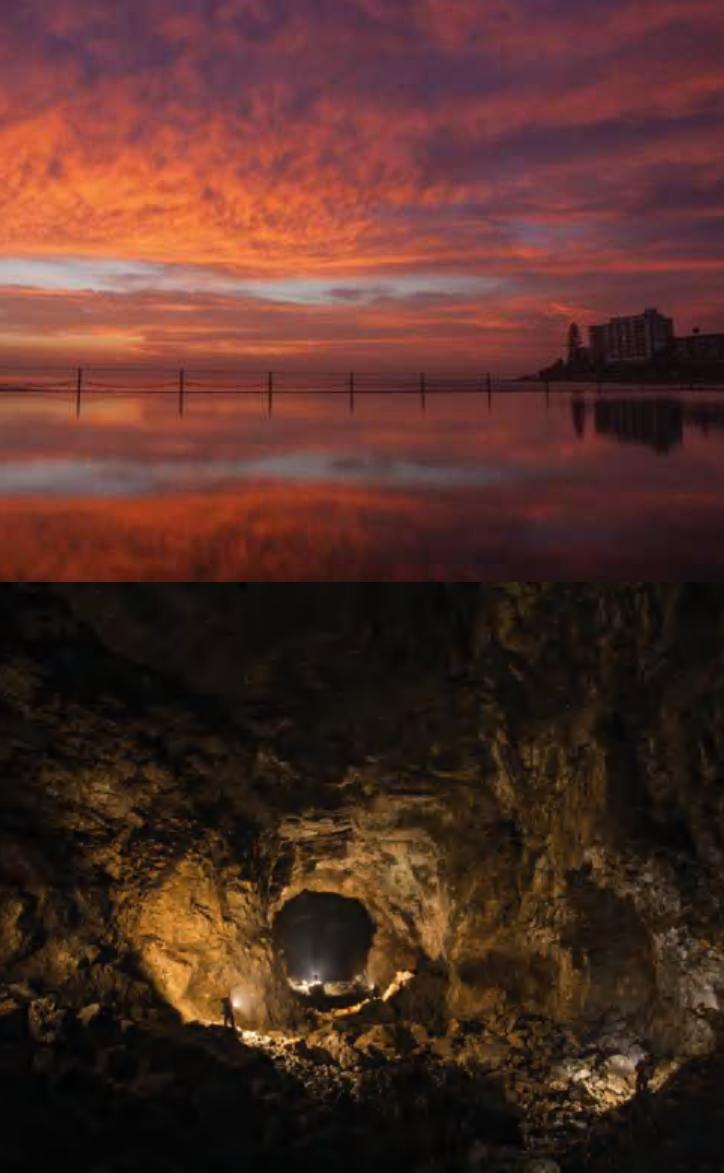
"My first Eizo was literally a revelation. Finally, I had a monitor that could display exactly what I was working with. I rely on my Eizos to reveal the full tonal range and subtle textural detail that I use in my image production."

William Long, AIPP Australian Commercial Photographer of the Year 2013, Master Photographer V AIPP, Fellow of the RPS and the BIPP.



Test drive an Eizo ColorEdge at these exclusive stockists





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Shooting a perfect slow-shutter-speed seascape is harder than it looks. Mick Fletoridis shares some tricks of the trade.

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Andrea Francolini, one of the world's premier yachting photographers, talks to Marc Gafen about his career and the secrets of successful photography.

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Marianne Lim and Dylan Toh show you how to take control of contrast in post and make your landscapes stand out from the crowd.

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Below the surface of the earth is a largely undocumented world of incredible photo opportunities. Caver and photographer Neil Silverwood leads us on an amazing underground adventure.

62 FEEL THE NEED FOR SPEED?

Are you ready to swap the cheap zoom that came with your DSLR for something with a fast maximum aperture? Pro lenses cost more but, as Peter Burian explains, there are plenty of positives.

Features

This month we show you how to shoot stunning long-exposure seascapes, we reveal the secrets behind post-production contrast, we journey into the brave new world of cave photography, and talk to veteran yachting photographer **Andrea Francolini**.



Download Images

Whenever you see this logo, go to our website at www.australianphotography.com and download the free tutorial images that accompany the article. From the home page go to the 'how to' tab then click 'tutorial images'.

HOW TO Make Striking Long Exposures



Right place, right time!
Sunrise, Cronulla,
NSW. Canon 5D Mk
II, 24-70mm f/2.8
lens @ 24mm, 0.5
seconds @ f/22,
ISO 100. Shadows,
sharpening adjusted
in Lightroom 5.

Taking it slow



Long-exposure images require patience and practise but the rewards, for those prepared to try it, are huge. Mick Fletoridis explains how he got hooked on this challenging genre and shares some handy tips for anyone ready to give it a go.

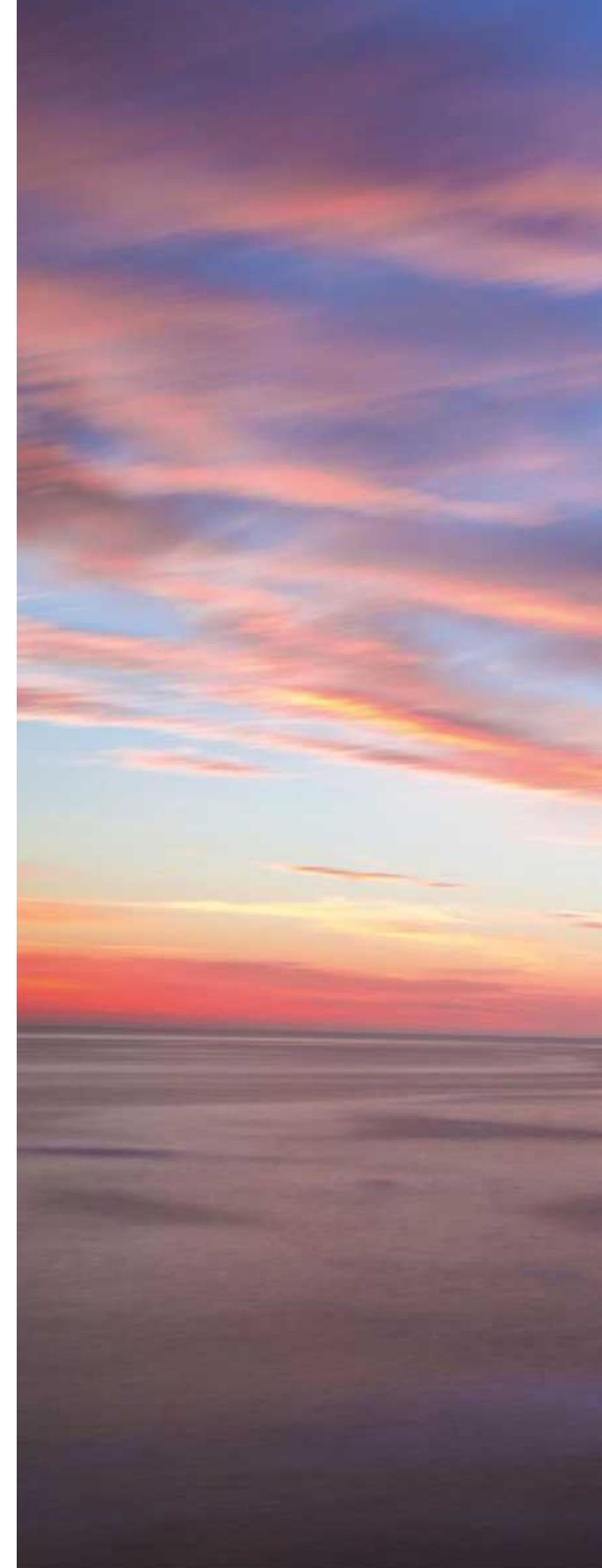
HOW TO Make Striking Long Exposures

RIGHT

Cape Solander cliffs, Kurnell NSW. Canon 5D Mk II, 24-70mm f/2.8 lens @ 24mm, 106 seconds @ f/9, ISO 100, Lee Big Stopper. Exposure, shadows, sharpening adjusted in Lightroom 5.

BELOW

Rock fisherman, Sydney Harbour. Shot during a video shoot for *Fishing World* magazine. angler John Newbery was too busy getting bites to stay still for the shot – hence the blur! Canon 5D Mk II, 24-70mm f/2.8 lens @ 24mm, 122 seconds @ f/11, ISO 160, Lee Little Stopper. Exposure, shadows, sharpening adjusted in Lightroom 5.



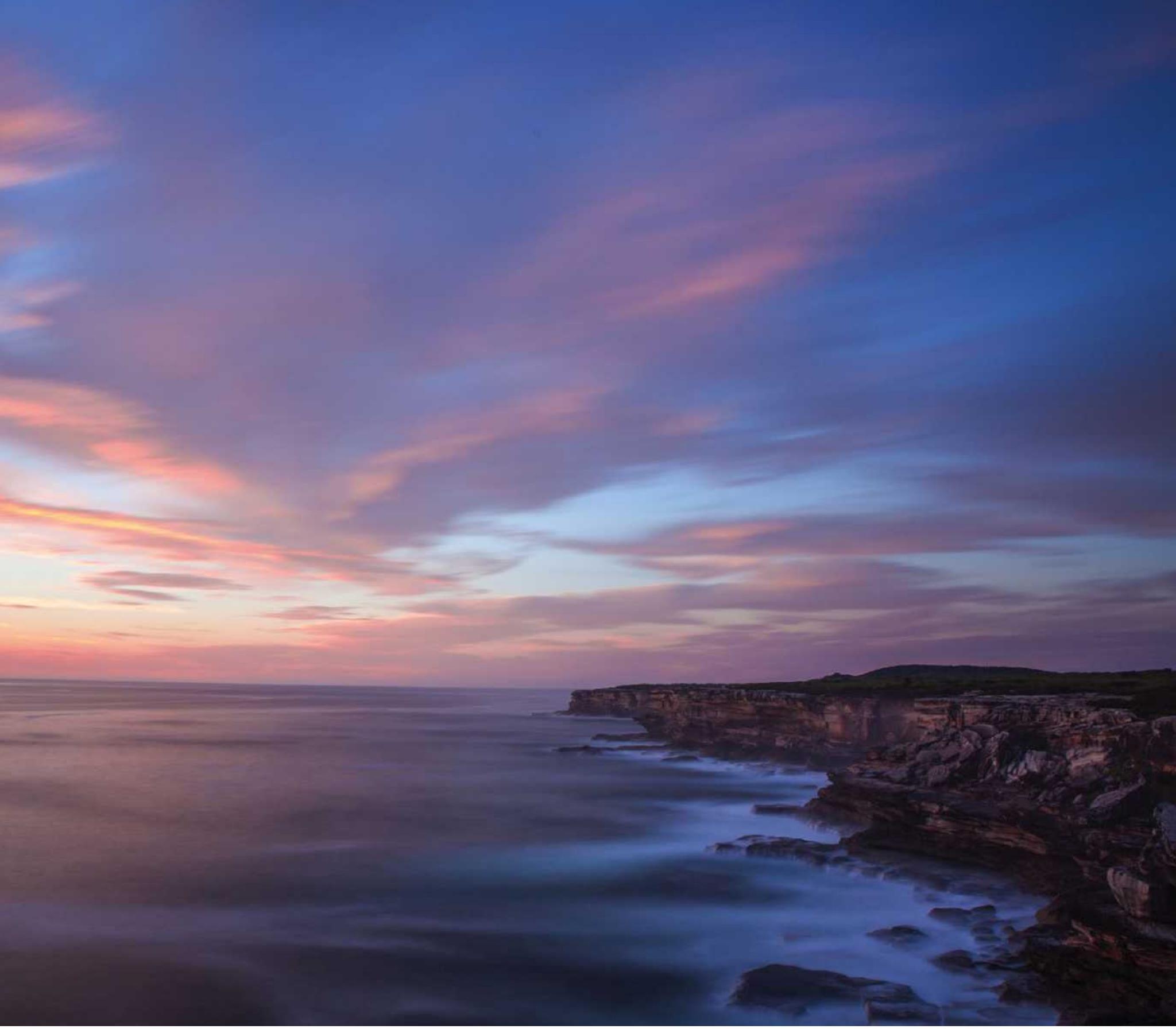
During a photography course at Sydney's Australian Centre of Photography a couple of years ago the instructor suggested the students needed to find their "thing" – a subject, style or technique to concentrate our photographic efforts upon. As hard as I tried after completing the course that 'thing' eluded me. Brief phases shooting different subjects or trying different techniques delivered mixed results, or only held my interest sporadically. Eventually I had the idea to head to the coast around southern Sydney to shoot images of the ocean. A low-pressure system was producing a large swell and angry skies off Cronulla – and maybe, I thought, the makings of some interesting sunrise photos. That morning I found myself at a prime location near a coastal rock swimming pool, just off what is a busy walkway during daylight hours. But it was deserted at 5am. A few years earlier I'd been to the same spot late one day and taken some images with fairly mixed results. I'd hoped to go back and try again.

The main problem I found this time around was getting the exposure right – many images were over exposed above the horizon

because I didn't have an ND filter. There was also an orange glow on all of the shots, courtesy of some floodlights near the location that I hadn't taken much notice of before! There was definitely a lesson learnt, but there were enough reasonable pics from that shoot to spur me on to try and tackle seascapes more seriously. I left it on the backburner, though, until around a year ago when I started heading out most weekends to shoot at sunrise along the southern Sydney coastline. And while I'm no expert, I've found shooting regularly has taught me a lot and produced some good results. If you're thinking of taking up seascapes, or long exposures more generally, the following tips from my experiences might spur you on to give it a try.

Making a start

I'd long been impressed by the seascapes featured in the likes of AP magazine, but I hadn't realised what it took to produce them. The most difficult part I found was bringing all the required elements together. Firstly, nature plays a major part in your success. I've been on many shoots where a much-anticipated



sunrise has been very disappointing, with little in the way of cloud or colour to help produce a pleasing photo – or make getting out of bed at 4am worthwhile! While grey or dark angry skies can result in interesting images, there's nothing like a stunning orange glow rising on the horizon to lift a seascape photographer's spirits. As I've discovered, however, "perfect" conditions don't come about that often. It can be a numbers game. Since I started shooting seascapes about a year ago I can count on one hand the number of stunning sunrises I've been on hand to experience. The more you get out there, though, the better your chances of shooting the magic when it happens. I've also learnt it pays to be patient if you hope to produce pleasing seascape images on a regular basis.

Location, location

Finding suitable locations to shoot seascapes can be a challenge. Like many amateur enthusiasts I was limited to shooting on weekends and I found it difficult to scout for new and interesting places along the coast. As a result I found myself relying on a

couple of spots reasonably close to home – Cronulla and Kurnell – where several consecutive weekends of sunrise shoots produced mixed results. However, there was the occasional image that made the effort worthwhile and pushed me to keep trying. Despite these being interesting locations I soon ran out of ideas.

Thankfully, these days it's not too hard to research new shooting locations from your lounge room! Google Earth and mobile apps such as The Photographer's Ephemeris are just two which have proven very handy for this purpose. The latter app has the advantage of displaying the exact direction of the sunrise (or sunset) which makes planning a shoot at a new location a lot easier. Using this technology has since helped me find new and challenging locations for shooting seascapes.

Play it safe

When shooting at coastal rock platforms there is an obvious element of danger involved. As well as being risky places to be in times of rough weather and big swells, ocean rock platforms

OPPOSITE PAGE

A church under stars at Hill End, NSW. An early attempt at night shooting produced this pleasing result. While there is lens distortion, I left it uncorrected to add to the image's eerie feel. Canon 5D Mk II, 24-70mm f/2.8 @ 50mm, 30 seconds @ f/2.8, ISO 3200. Cropping, shadows, sharpening adjusted in Lightroom 5.

RIGHT

Cape Solander cliffs, Kurnell NSW. Canon 5D Mk II, 24-70mm 2.8 lens @ 24mm, 121 seconds at 9, ISO 100, Lee Big Stopper. Shadows, vibrance, sharpening adjusted in Lightroom 5.





can present a risk to your valuable camera equipment. Saltwater and cameras definitely don't mix! This is another reason why it pays to do some research before venturing out to a new location. Trying to find your way to an unfamiliar spot in the dark can be risky, especially when you're weighed down with a tripod and other camera gear. More than once I've been caught out when I had been "winging it" by heading to a different spot at the last minute. When I've done this I've often struggled to find a suitable safe place to shoot from. As a result I've ended up moving around frantically trying to find a better position, right about the time the light is the best and I should be taking photos! Not surprisingly, when this has occurred the results have been disappointing.

If you do find yourself heading "blind" to an untried location at least get there very early and give yourself plenty of time to find a suitable safe shooting position. Also make sure you have a quality torch. LED head torches are the best as they provide more than ample light, usually have different light output settings and importantly, leave your hands free so you can safely negotiate your way around. Torches too can help in the creative process when taking photos, by lighting aspects of the image's foreground such as rocks, driftwood or other points of interest.

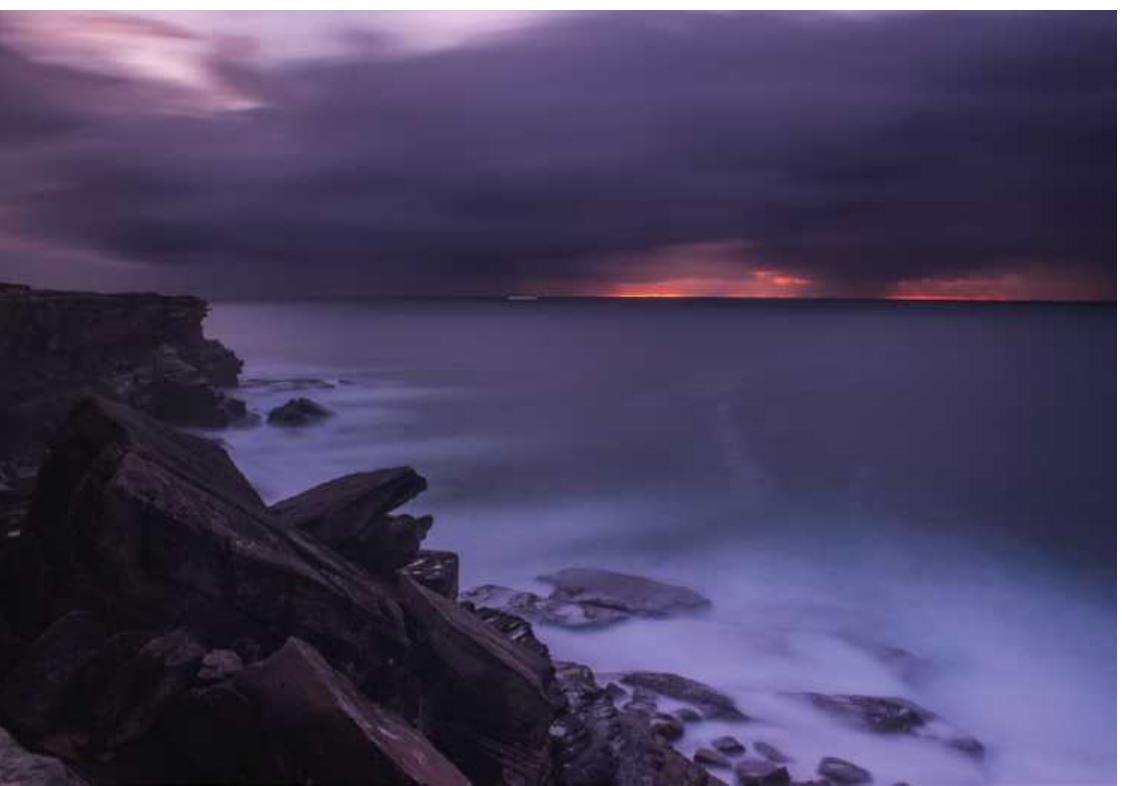
When visiting any coastal location you should be aware of any tidal influence that will affect where you can safely shoot from and for how long. While you will have some occasions when you get your feet wet – or often in my case – shooting from locations which can put your life at risk is best avoided. As a keen rock fisherman from an early

age I can attest to how quickly a seemingly calm sea can turn into a dangerous swell that can "swallow" a rock ledge without warning.

Gearing up

When I started concentrating on seascapes I was shooting with a trusty Canon EOS 5D Mk II and a 24-70mm Canon L series f/2.8 lens atop a Manfrotto 055XProB tripod and I was using a cable shutter release. This has proved to be a solid and reliable 'go-to' combination. I also recently started using a Sony A7 with a Metabones adaptor to suit the Canon 24-70mm lens. I trigger the mirrorless Sony with an inexpensive FotoTech wireless remote. The lighter weight of this set up has been a bonus when I have been scampering around rocks.

Initially I shot in Aperture Priority mode with an ISO setting of 50-100 and a closed-down aperture to create a long exposure. This produced some pleasing results and it's still part of the process I use when I'm shooting at sunrise. While using aperture priority mode gave me some good pictures, it had its creative limitations. I really like the smooth silky look extra-long exposures give to seascape images. As I discovered though, trying to achieve that look was impossible without using lens filters. This led to experimenting firstly with ND filters to combat over-exposed horizons. Unfortunately this also gave me disappointing results. The first set of reasonably inexpensive graduated ND filters I tried produced vignetting which made most of my images useless. I managed to save a few via cropping in Lightroom, but I thought there had to be a better way.



TOP

Looking south just after sunrise, Coalcliff, NSW. Sony A7, Metabones adaptor, Canon 24-70mm f/2.8 lens @ 24mm, 183 seconds @ f/8, ISO 50, Lee Big Stopper. Shadows, sharpening, white balance adjusted in Lightroom 5.

ABOVE

Fire on the horizon, Cape Solander, Kurnell NSW. Sony A7, Metabones adaptor, Canon 24-70mm f/2.8 lens @ 24mm, 127 seconds @ f/11, ISO 50, Lee Little Stopper. Shadows, sharpening adjusted in Lightroom 5.

After some internet research I discovered the Lee range of filters was rated highly by seascape and landscape photographers around the world. I went on to buy a Lee 100mm filter mounting kit and lens adaptor, 100 x 100mm, ND9, Soft Grad filter and Little Stopper and Big Stopper filters. The latter filters reduce the amount of light reaching your camera's sensor by eight and ten stops, respectively. While Lee filters aren't cheap, they are quality products. Purchasing these filters greatly improved my seascape options and results overnight. Using the Soft Grad filter was immediately effective for helping reduce horizon "blow out" while the Stoppers have quickly become my favourite long exposure tools.

The first time I used the Big Stopper though, it took some getting used to! Firstly, you take an exposure reading sans filter and then refer to a provided chart for the appropriate shutter speed to use with the filter. For example, a reading of 1/15s requires a one minute exposure (in Bulb mode) when shooting with the Big Stopper. I use the stopwatch on my iPhone to time my exposure.

The added difficulty when using these filters is focusing. You can't focus with the Big (or Little) Stopper in place so your subject has to be focused before you fit the filter. While it took some time to become familiar with using the Stoppers, the results have been pleasing. I especially love the silky smooth water effect using the Big Stopper provides. Another advantage of the Lee system is that filters can be stacked together as I often do with the Big or Little Stopper and the Soft Grad filter. I discovered though that when stacking, the Stopper filter has to be the closest to the lens or weird light leaks can appear on the bottom third of images. While I typically like to use the Stopper filters when the sun is not long over the horizon, they're great to have in the kit for use at any time of day for shooting long exposures.

It should go without saying that a sturdy tripod and cable or remote shutter release are mandatory for shooting long exposures – the sturdier, the better when shooting seascapes, as saltwater will often flood rock ledges and swirl around the tripod's legs!

Once I've finished a shoot I use Lightroom for processing. As hard as I try to get photos right "in camera" I still have to make some adjustments in Lightroom, although I try to keep changes to a minimum. I generally only spend a few minutes

WEB: CHECK OUT THIS LONG-
EXPOSURE VIDEO TUTORIAL
FROM MATT GRANGER.

“Most adjustments made are for exposure – I find it difficult to get this ‘spot on’ when I’m using filters...”

adjusting images in Lightroom. Most adjustments made are for exposure – I find it difficult to get this ‘spot on’ when I’m using filters, especially the 10 stop Big Stopper – as well as shadows, temperature and some occasional cropping.

New horizons

While I’m happy so far with the results I’ve achieved shooting long exposure seascapes, there’s a lot to learn and new things to try, which of course keeps it interesting and challenging. Recently I was also inspired to have a go at long exposure night photography, in particular, shooting images to capture stars. After being inspired by regular stunning night sky images in the pages of *Australian Photography* and websites like Flickr, I did some research on how to go about it. With an idea of how to get started I planned to shoot stars when the first opportunity arose. From what I learned, living in a big city like Sydney wasn’t conducive to shooting the night sky, so I had to venture inland to escape the artificial light pollution. Last summer when I travelled to the Snowy Mountains for a spot of trout

fishing I found the perfect opportunity for night shoots. One night, after a successful evening’s fly fishing, some mates and I adjourned to our campsite at Lake Eucumbene. It was a still dark night and the stars were out in force. While the others were cooking up a well-earned feed and downing a beer or two, I wandered around in the dark looking for a good location to shoot the starry sky. I found a likely location and with camera on a tripod and with a cable release attached I set the camera to ISO 3200, and the shutter to 30 seconds. I triggered the shutter and stood and waited. Click! The 5D’s LED screen flashed up the image. I stood there amazed. The stars, including the Milky Way, displayed as clear as day. How long had this been going on?

I finished up with several usable images that night. I’ve also since invested in a 14mm lens and shooting stars is now fast becoming a regular part of my long exposure obsession. If you’re still searching for your “thing” in photography, give long exposures a go. You might be pleasantly surprised at the result. Be warned though, it can be addictive! ☺

The advertisement features three main sections showcasing Photodynamic lighting products:

- VA PRO Series:** Top section. Includes a close-up of a VA 600 unit with a digital display showing "14:882". The text "INTRODUCING THE NEW PHOTODYNAMIC VA PRO Series" is displayed.
- Angle Light Series:** Middle section. Shows a VA 600 unit mounted on a tripod with a translucent diffuser. A "SyncCue2 remote flash trigger" is shown connected to the unit. The text "INTRODUCING THE NEW PHOTODYNAMIC Angle Light Series" is displayed.
- VA LITE Series:** Bottom section. Shows a VA 600 unit with a digital display showing "14:882". The text "INTRODUCING THE NEW PHOTODYNAMIC VA LITE Series" is displayed.

At the bottom left, it says "ONLY AT FOTOGÉNIC" with a hand cursor icon pointing to the word "FOTOGÉNIC". At the bottom right, it says "WWW.FOTOGÉNIC.COM.AU".

High Seas Shooter

A casual comment to an employer set Andrea Francolini on a new path from graphic designer to pro photographer. Seventeen years later he's now one of the world's premier yachting photographers. He talks to **Marc Gafen about his brilliant career and his unique approach to photography.**

RIGHT

Francolini says, "I love this image of super maxi Wild Oats XI winning the Rolex Sydney to Hobart yacht race in 2014. The number of spectator boats following the yacht was impressive and the sea conditions were calm. No action shots were possible here so I had to think outside the box and pick up a wide-angle lens to show the environment."

Canon 5D Mk III, 24-70mm @ 30mm, 1/1000s @ f/13, ISO 400. Curves and levels adjustment, sharpening in Photoshop.

Professional marine photographer Andrea Francolini certainly isn't afraid to dip his toes in new and uncharted waters. And quite frankly, with a specialisation like his, it comes with the territory. Born in Italy, but having lived in New York, Geneva, and Milan, Francolini decided to make Sydney his home 15 years ago. Given the relative scarcity of photographers operating at his level in such a niche, his services are in great demand and he has been commissioned to work on every continent. His fluency in English, French and Italian has also been a great advantage. Represented by the stock library Corbis, his yachting images are distributed worldwide, and his pictures have graced over 150 covers to date.

Dipping his toe in

Before moving to photography, Francolini worked as a graphic designer. But for the poor quality images he was asked to work with, he might never have found his true calling. Based in Milan at the time, Francolini found himself working on brochures and calendars for a client in West Africa. So unimpressed was



he with the images he'd been asked to work with, he asked the client if they could purchase stock imagery instead. Fortunately, the client declined the request. And instead, knowing that Francolini was an amateur shooter, the client put him on a plane to shoot some material himself! "It was great fun," Francolini recalls. "I'm not sure that the pictures were great, but it certainly was an upgrade. Not only was I getting paid to shoot pictures, but I was travelling to remote areas." And little by little, as demand for his photography grew, Francolini took on less and less graphic design work.

With a professional career that spans 17 years, Francolini has been specialising in yachting for the last 16 years. The idea to become a professional photographer wasn't a conscious decision made at one specific point in time. "It just happened



little by little,” he says. “But once the passion kicked in, there was no turning back. And when that happens, things just tend to snowball.”

Formal photography study was not part of Francolini’s journey into the industry. Instead, he learnt initially by trial and error, and then by assisting other photographers, and paying careful attention to how they were doing things. While working as a graphic designer with a small fashion magazine, he often found himself in the studio where he helped with the lights and other basic tasks. “Back when I started,” Francolini says, “there was no internet, so I was reading a lot of magazines. In order to learn, and also to hone my skills, I used to shoot, write down exactly what I did, and then check everything once the film had been processed.”

Early forays in photography came about, “because I wasn’t very good at drawing,” Francolini admits. In order to most clearly communicate with his graphic design clients, he would typically photograph something in order to show it to the client or art director. “At home I loved shooting flowers. Robert Mapplethorpe’s flowers were a great influence for me, and I even tried to replicate what he was doing – a bit delusional, I know! And to learn, I just used the lights my mother had at home. Desk lights, bedside lights, you name it. It used to drive her crazy because she was always looking for them.”

Wind in his sails

Even when Francolini started to get serious about his photography, yachting as a specialisation wasn’t yet on the



Tools of the trade

When it comes to gear, Francolini's kit is extensive, and one might conclude he's a bit of a gear freak. For his commissioned work he's always been a Canon shooter. His camera bodies include the EOS 1Dx, 5D Mk III, 5Ds, and the old 1Ds, which he says is still a great camera. His Canon lenses range from 14mm all the way to a 500mm telephoto, so he's literally got every conceivable situation covered. Specifically, he relies on the 14mm f/2.8, 16-35mm f/2.8, 24-70mm f/2.8, 70-200mm f/2.8, 500mm IS f/4, 35mm f/1.4, and an 85mm f/1.2, all of which are L-series lenses. On the rare occasion he sets up flash, he uses Pocket Wizards, although he says he far prefers the light that Mother Nature provides. For camera support, Francolini has recently discovered Benro carbon fibre tripods, which are a much more economical choice over the more well-known brands, he says. To keep all his gear protected and dry, he relies on Lowepro bags and Pelican cases.

For his personal work, Francolini only works with film cameras. In his bag, you'll find a Leica M6 with 28mm, 35mm and 90mm lenses, a Leica R4s and R8 with 50mm f/2 lens, a Nikonos V with a 35mm lens, a Hasselblad Xpan with a 45mm lens, a Mamiya 7 medium-format camera with 65mm, 80mm and 150mm lenses and a Toyo 4x5 with 210mm lens. If it wasn't obvious already, Francolini loves cameras and says that every now and then he'll add one to his collection, and try and use it at least once a year. "At least it justifies the purchase," he says. Then he adds to himself, "Yeah, right!" His film of choice is Kodak Tri-X, which he only lets Chris Reid at Blanco Negro in inner city Sydney process.

ABOVE

A crew member up the mast on super maxi Wild Oats XI. This image happened by pure chance. Francolini says, "I was waiting for the boat to come up Sydney Harbour when it tacked and crossed Centrepoint tower. Within seconds the composition changed and it did not look good after that." Canon 1Dx, 500mm focal length, 1/1600s @ f/5.6, ISO 400. Curves and levels adjustment, sharpening in Photoshop.

cards. There's a great chance that had Francolini not been so clumsy, he might never have discovered his affinity for marine images. On one particular outing with a cousin, Francolini was looking forward to the prospect of going sailing. However, when getting on the boat, he slipped and fell into the water. His cousin left him behind on the dock, with his camera and some film. Later, when his aunt asked if he had taken any photos of her son, he rushed to the local photo lab to have the two rolls of film processed. He subsequently made his first sale – two 4x6in prints! The rest, he says now, is history.

Although Francolini also says he's no sailor, he loves the sport of yachting – the water, the colours and the locations. "Come on," he says, "How many people can call Tahiti, Sardinia, The Med, Hamilton Island or Sydney Harbour their office?" But there are certainly challenges that anyone working in this environment faces. Probably the hardest part of the job is actually keeping the cameras dry. Francolini says that while it may seem rather basic, if the gear is wet, then he can't work. And while a typical day on the water may see him shooting up to a thousand images, that's only half the job. Editing and post production take significant time and effort, and it's often here that he'll discover an image he didn't "see" on the day as he was busy trying to stand up while shooting, or not drop his camera, or himself, in the water. "While I have a very good visual memory and can remember all the shots I took on the day, when I sit at the computer it's then that I can pay really close attention to things like how the water reacted, a splash or someone's expression."

"This is a classic shot," says Francolini. "I was taking pictures for this crew while they were training before the Olympics in 2008. This was a great day in 'the office' for me as I could do what I wanted and set up the pictures. Being such a professional crew I could really push the limits with them. This shot sums it all up. Action in the water, you can see the harbour bridge and it's perfectly sharp!" Canon 1Ds Mk II, 16-35mm @ 16mm, 1/500s @ f/10, ISO 200. Curves and levels adjustment, sharpening in Photoshop.



PROFILE Andrea Francolini





"Mark roundings are always a good place to be when boats arrive at the same time," says Francolini. "In this instance there were big waves, which made for good abstract colours and shapes in the foreground." Canon 1Ds Mk III, 500mm, 1/1000s @ f/9, ISO 250. Curves, levels, sharpening in Photoshop.



Inspiration & influence

Francolini draws his inspiration for this photography from sources far and wide. "Anything which gives me emotions. It could be the light, the contrast, or the mood of the setting. When it comes to my sailing images," Francolini says, "I am after the action or something that makes you stop and think when you see it." It was the work of Sebastião Salgado and Richard Avedon that had the greatest impact on Francolini before he ever seriously picked up a camera. "They were amongst the first images I remember seeing as kid," he recalls. "It was all the details in Salgado's work that really struck me – details in the shadows and the highlights. Even though I knew nothing about photography at the time, and had no real interest in it, seeing so much detail everywhere was really cool." Of Avedon's work, Francolini says he loved the intensity of the portraits in the series, *In the American West*. Since he's been working professionally, it's the work of Trent Parke, Daido Moriyama, James Nachtwey and Don McCullin which inspires him. Ironically, no sailing photographers make his top-five list, although he cites the work of Gilles Martin-Raget and Carlo Borlenghi as inspiring.

A personal focus

Although he's swamped with commissioned work, Francolini can't stress the importance of personal projects enough.

"It's so important because it helps you grow and develop as a photographer," he says. And this fact is not lost on his clients either, who often request to see not only his commissioned assignments, but also the material he shoots when he has no client needs to be met. Francolini's love of travel has not only seen him grow an extensive personal portfolio, it's also seen him take on other significant projects. "Wherever I travel, I always try to give something back to the community – whether it's food to the homeless, helping to fix someone's home, buying books for a school, et cetera." He has visited Pakistan annually since 2008 and in 2010 he set up the 'My First School' trust, an Australian registered charity, the aim of which is to promote education in a specific region in northern Pakistan. "The idea behind it is to do something long-lasting, rather than many small things," he says. The decision to do something substantial came about after a trip where he was appalled by conditions he discovered in which local children were educated.

Funds are raised in Australia so that when Francolini returns to Pakistan the money can be used for anything from furniture to books, water tanks, bags of cement and whatever is really needed to improve the learning conditions for children. In 2013 he started a sponsorship program to send children to school. Together with the help of his tour operator, Saeed Khan, a recipient is chosen



once a five-year scholarship can be guaranteed. At this stage, eight full scholarships have been awarded, and the response from villagers and locals has been very positive.

Photography also plays a major role and Francolini shoots everything, with the images used to promote the charity and help raise funds. "After every annual trip I make a book through Momento Pro, in Sydney, which I sell through my site and personal contacts. All the profits go to the trust," he says. Further down the track, it's Francolini's goal to not only have an exhibition and sell prints, but eventually to have a book published and distributed in bookshops around Australia and abroad.

Old school

Despite the pervasiveness of digital technology, Francolini still chooses to shoot the majority of his personal work on film. "I love film as it helps me slow the entire process down," he says. "When shooting, and especially printing, I like seeing the imperfections." He says that while he's not shooting any more or less using film, the process means that he's taking his time. And while the printing can be very time consuming, it's also very rewarding. Although digital images can simulate film, Francolini has another reason for going 'old school'. "I prefer film for long-term projects because the quality is always the same and the feel is always the same. It's very personal." ☀

Francolini's photo tips

With the depth and variety of professional experience that Francolini has under his belt, he has plenty of valuable information to impart. He appreciates the fact that those learning photography these days will have an entirely different experience to those who learned the craft shooting on film. "On one hand, today's new photographers have it so much easier with digital, because not only can they literally shoot as much as they want with no cost implications – just think of the saving in money and time not using film – they have instant access to all their camera settings in order to learn from their mistakes. And the internet provides a practically limitless source of material from which to study." That being said, it's his view that one area which simply does not get the attention it deserves is the importance of composition. "You can be a Photoshop genius, but if you don't know how to compose an image in camera or crop it in post production, then your pictures will always be average," Francolini says. "Composition is the key to everything." And while Photoshop skills are certainly important, those relying on it should do so to help improve an image, rather than trying to "save" it, he believes.

Improving your photography doesn't have to require a quantum leap forward. Instead simply focusing on the fundamentals and making gradual, incremental changes can make all the difference. For example, instead of spending so much time staring at the back of your camera, consider focusing your attention elsewhere. Francolini says that enthusiasts should be looking around and searching for the next shot, instead of at their LCD screen.

Something else that newer photographers tend to get hung up on is gear. "No camera has ever taken a good picture." Francolini says. "It's always the photographer. In fact, a little while back, two of my images were finalists in a photography competition. One was shot with my phone, the other on a Holga [a plastic camera with no focus ring or settings]." So Francolini suggests that next time you're about to fork out thousands of dollars on a new piece of kit, you should consider whether you really need it.

Besides being technically proficient, the mark of any successful photographer is their style. Francolini's advice is to study the work of other photographers – they don't even need to shoot what you do. He says that of his extensive collection of photo books – approximately 80, at last count – only two of them are related to sailing. Be open with where you look for ideas and inspiration, and apply whatever works to your photography. And remember, your style will change over time as you develop your approach and your eye. "Finding a style that you like, and which suits your work, is very hard," Francolini says. "So, take your time. It will come along when you least expect it."

See Andrea Francolini's work at www.afrancolini.com

Instagram/Twitter - #afrancolini

My First School - www.my-first-school.org

OPPOSITE PAGE

"I have started shooting portraits where only the eyes are in focus," says Francolini. "I would normally shoot this with an 85mm f/1.2 lens but when I travel it's too heavy to take with me. I am looking for the eye contact, so by having only the eyes in focus I achieve this." Canon 5D Mk III, 50mm prime lens, 1/400s @ f/1.4, ISO 400. Curves and levels adjustment, sharpening in Photoshop.

LEFT

Francolini says, "Now this shot had a bit of luck in it. I was following Wild Oats XI (the yacht) and I was shooting with my 500mm lens. I saw the helicopter with my right eye while shooting and waited for it to pass in front of me! Only one frame was perfect. Once I got home I noticed the tender in the background almost airborn. Many people who see this shot say it looks like it's from a James Bond movie!" Canon 1Dx, 500mm focal length, 1/1250s @ f/11, ISO 400. Curves and levels adjustment, sharpening in Photoshop.

PROFILE Andrea Francolini

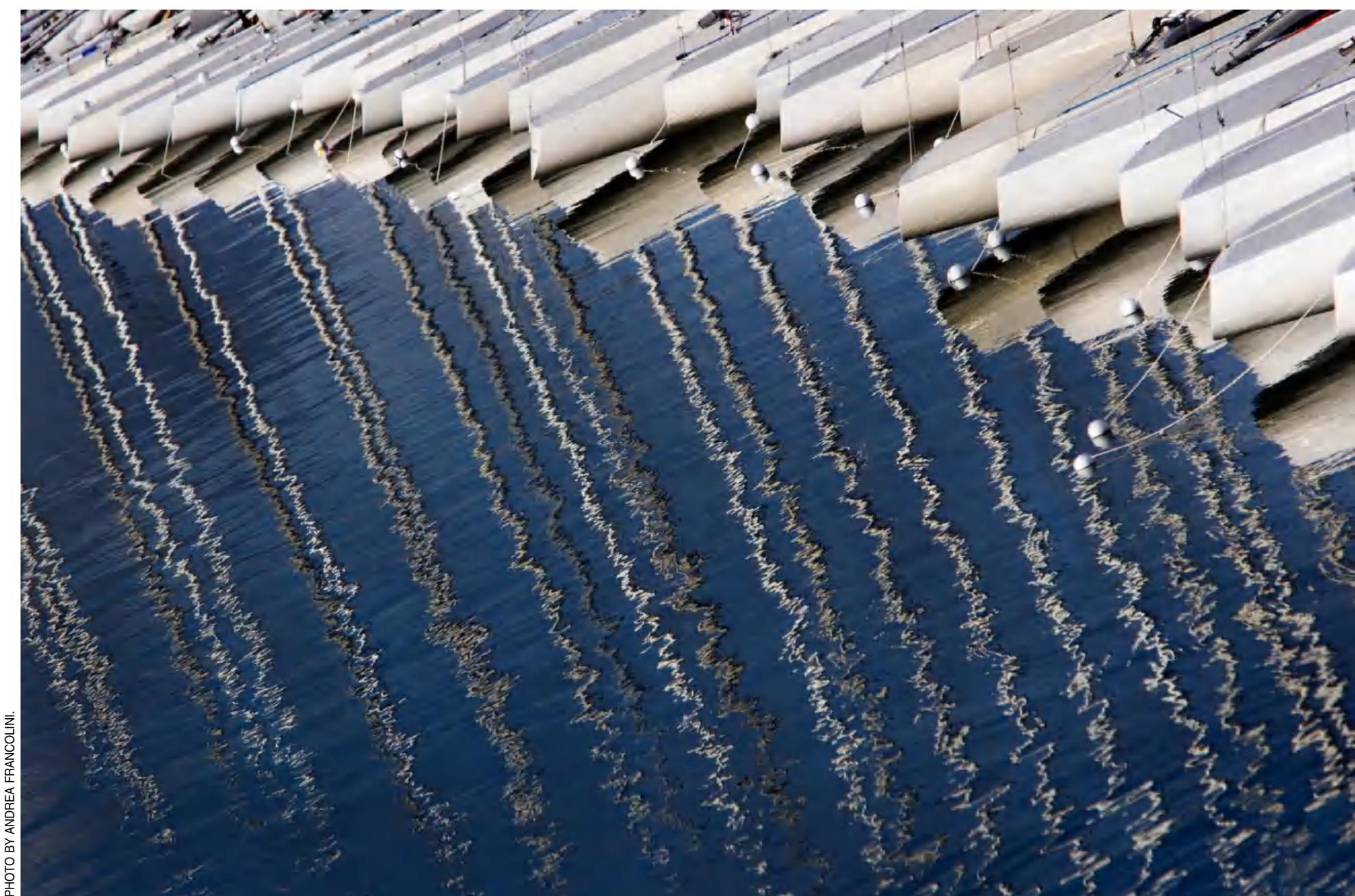


PHOTO BY ANDREA FRANCOLINI.



PHOTO BY ANDREA FRANCOLINI.

PROFILE Andrea Francolini

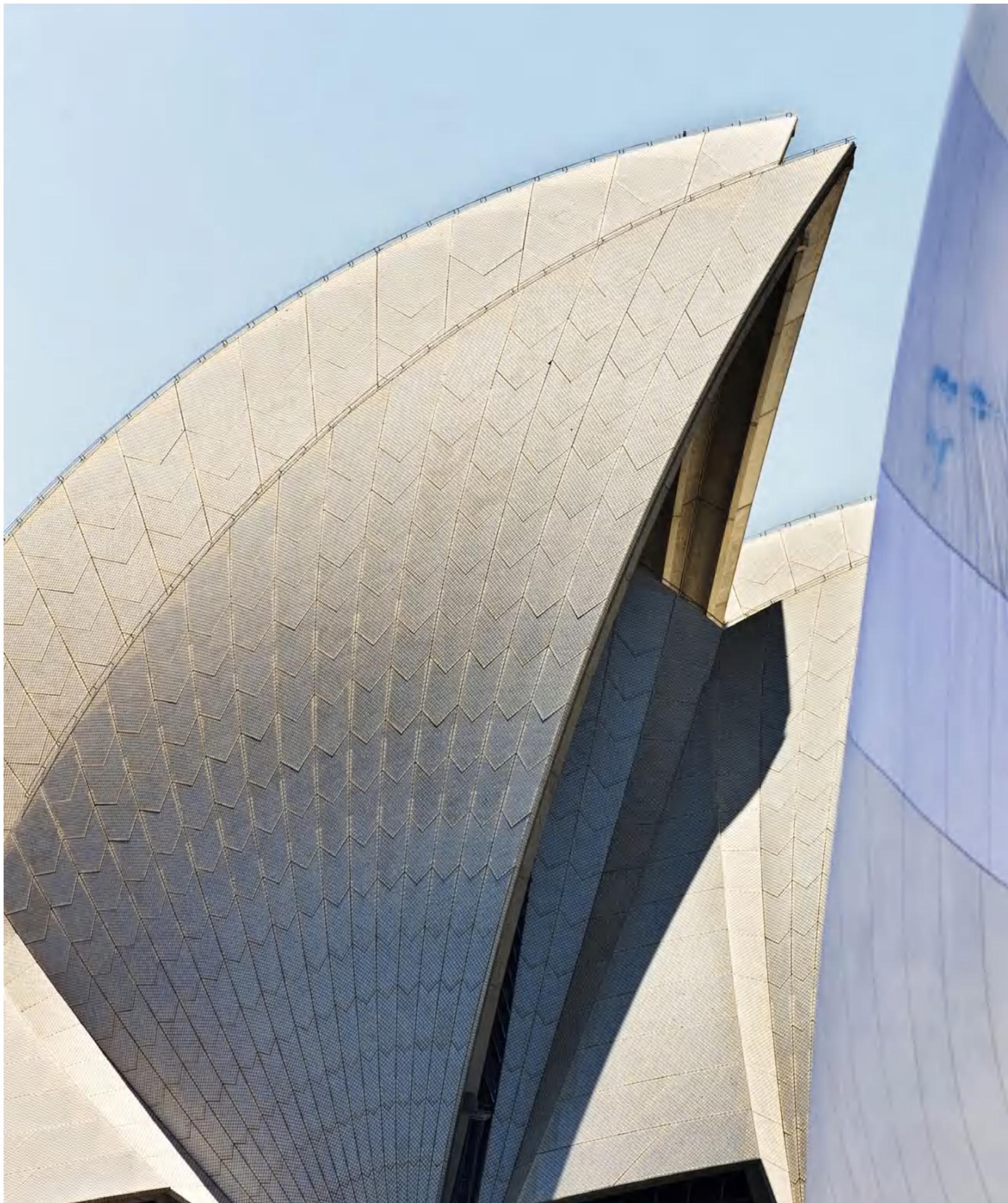




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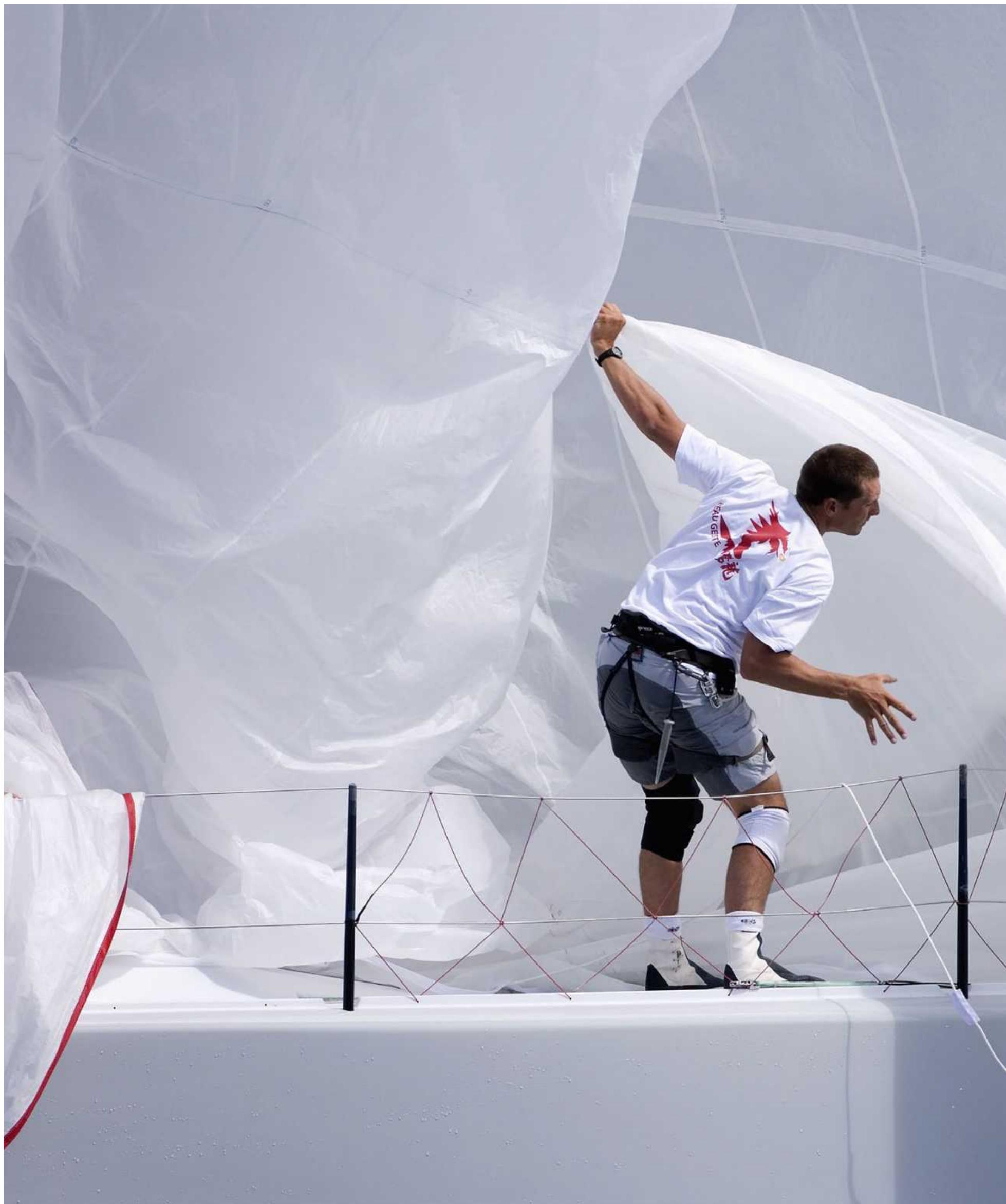




PHOTO BY ANDREA FRANCOLINI.

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Individual winners will be named in each category and an additional award will be presented to an overall winner, who will be named 2015 Photographer of the Year.

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- Zenfolio Premium 2-year Business Account valued at \$480
- WD package valued at \$895
- 6 x \$100 voucher from Camera House
- \$250 cash per junior category

TO ENTER

Upload a portfolio of six images, addressing one of the categories (Landscape, Portrait, Nature or Black & White) @ www.australianphotography.com 

- You may enter more than one category (however, the same photo may not be used in multiple categories, for example Landscape and Black and White).
- Entries close: 5pm, 6 November, 2015.
- You may enter each category as many times as you like.
- Entry fee: Adult, \$20 per portfolio of six images. Junior, \$10 per portfolio of six images

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Terms & Conditions: For full terms and conditions visit www.australianphotography.com. To be eligible to win a prize, the entrant must be a resident of Australia or New Zealand with an Australian or New Zealand mailing address. Professional photographers are not permitted to enter. (For the purposes of this competition a professional photographer is someone who earns more than \$2,000 a year from photography.) The entrant must submit six images. The entrant can enter more than once. Images must have been shot since 1 November 2014. The entrant must be the creator of the images and own the copyright of the images. The entrant indemnifies Yaffa Media against any claim, legal or otherwise, that may arise out of publication of the images. The entrant retains copyright of their images but grants Yaffa Media permission to reproduce the images on www.australianphotography.com, in Australian Photography + digital magazine, in the Australian Photography email newsletter, or in any other Australian Photography + digital assets for the purposes of promoting the competition. Entry fee is \$20 incl. GST for the adult category, 18 years of age and older, and \$10 for the junior category, 17 years and under. Closing date for entries is 5pm, 6 November 2015. Images will be shortlisted by the editorial staff of Australian Photography + digital before being sent to judges for final judging. The judges' decisions are final and no further correspondence will be entered into.



WEB: SEE MORE OF MARIANNE
AND DYLAN'S IMAGES HERE.

Sharpen Up

Taking control of contrast in post production is a surefire way to boost the visual impact of your images. Pro shooters Marianne Lim and Dylan Toh share their best contrast tips for landscape photography.

There are many aspects to post processing an image, but a very basic adjustment in contrast can give an image so much more life than it has with its original ‘in-camera’ appearance. When considering contrast, the most immediate consideration is to vary areas of dark and light in the image. We like to consider contrast in what we call “the three Ts” – tonality, temperature and texture. When all three are considered and handled well, this gives an image added depth and dimension. It also gives the photographer a rough template from which to frame their post-processing routine. The following techniques require a basic understanding of luminosity masks and their use, which you can find out more about here – <http://goodlight.us/writing/luminositymasks/luminositymasks-1.html>. Luminosity masks help you select areas of varying brightness from the channels tab with a simple click and can be applied to any layer introduced into your workflow.

Temperature contrast

Temperature contrast relates to having areas of the image vary in terms of warm (yellow/gold) versus cool (blue) colours. Some images work well with a uniform temperature such as a pre-dawn blue hour image or an image shot into direct warm light. For the most part though, achieving a balance of warm bright tones and cool dark tones adds to the depth of an image. There are many ways to do this, but we find that adjusting colour temperature is



best done at the RAW level in Adobe Lightroom (LR) or Adobe Camera Raw (ACR). Since we’re editing at RAW level, this is often the first step of contrast adjustment.

Step 1: While in Lightroom or ACR, edit one version of your original image, mentally picturing the colours of the bright parts of the image. Adjust the temperature and tint to the desired value and open that in Photoshop. Create your luminosity masks based on this image.

Step 2: Adjust the same image in LR or ACR picturing the cooler colours of the dark parts of the image and export this as a layer in Photoshop above the original warm image.

Step 3: Select a dark luminosity mask (Ctrl-click) and create a layer mask over the cool layer.

Step 4: You can then refine the mask further by painting on



the layer mask with a white brush to include more of the cooler parts of the image, or painting over the layer mask with black to allow more of the warmer parts of the original layer to show through. Once you're satisfied with the blend of warm bright areas and contrasting cool dark areas, you can flatten your image and commence the remainder of your workflow.

Tonal contrast

Tonal contrast is the difference between dark and light areas of an image. Adjustments in this area can give an image added overall 'punch' and add interest to areas of the image to assist compositional elements achieve a flow. I find it's rare for one global contrast adjustment to benefit all parts of the image to the same degree. Therefore the key to all contrast adjustments,

especially tonal contrast, is to apply it selectively to areas of the image and to selective tones. This, in effect, is providing 'local contrast'. One quick way to control local contrast is to use the clarity slider in Lightroom or Adobe Camera Raw. This effectively increases the contrast within 'mid-tones' and applies the effect to the whole image. If you wish, you might introduce local contrast selectively in Lightroom using the various filters or the adjustment brush. Your selections however, are limited to the fineness of the brush in Lightroom, and its automatic selection of mid-tones using the 'clarity' function. Use the following steps as one method to gain finer control of tonal contrast in Photoshop.

Step 1: In Photoshop, using the curves adjustment layer allows you to select the contrast adjustments at any part of the tone

ABOVE
Port Campbell National Park, Victoria. Generally a mix of warm bright tones and cool dark tones makes for a more effective image, so we work in post-production to maximise that effect.

HOW TO Do More With Contrast

RIGHT

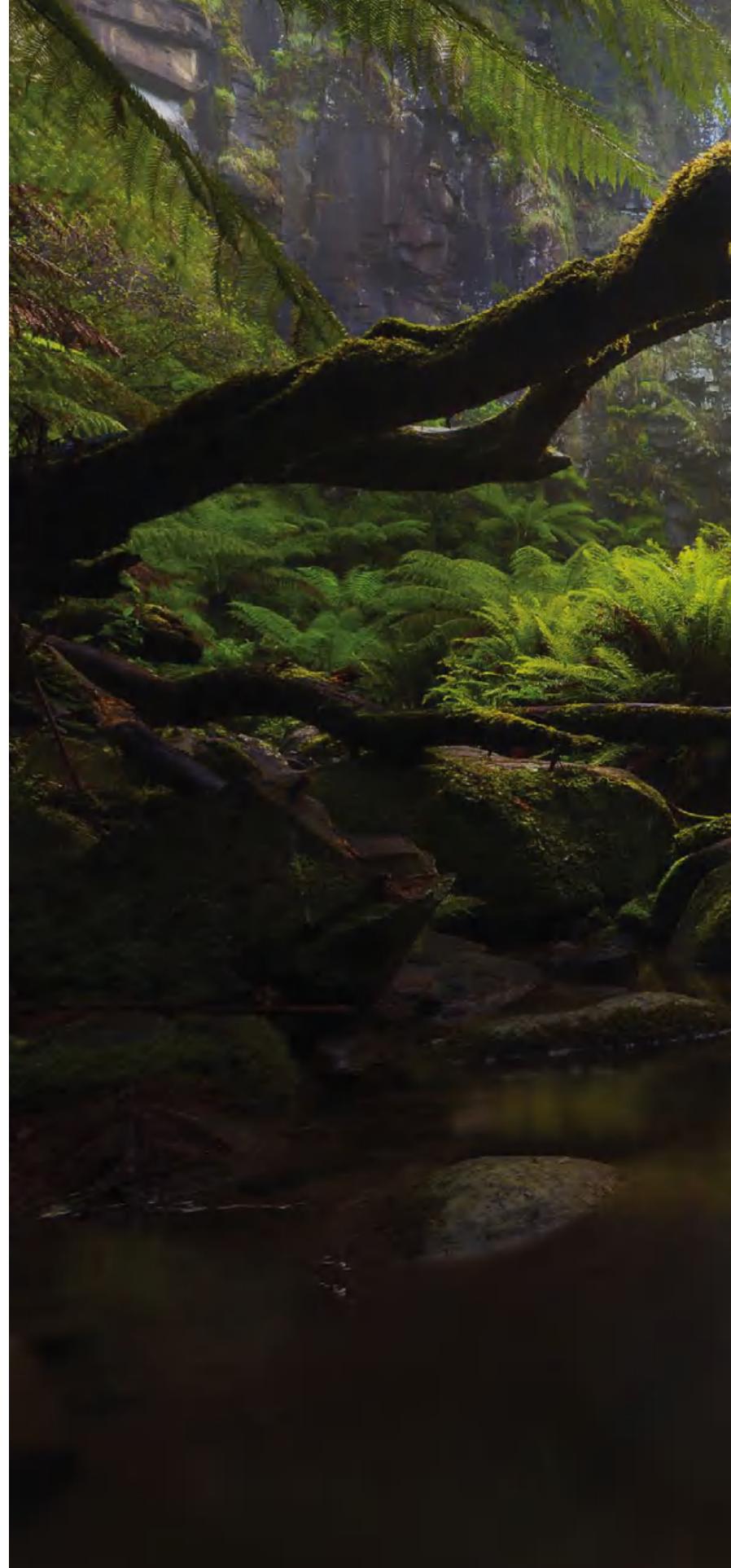
Hopetoun Falls, Great Otway NP, Victoria. These falls can be viewed from a platform only a short walk from the carpark, or descend about 200 steps to really get up close. Nestled amongst lush tree ferns, Hopetoun Falls is reflected here in the stream leading from the waterfall. Canon EOS 5DIII, Canon 16-35mm f/2.8L II lens, 1.6s @ f/16, ISO100, tripod, polariser. Two-exposure blend for reflection. Contrast, blur and sharpening done in Adobe Photoshop CC. Image by Dylan Toh.

BELLOW

Adding textural contrast: Gaussian Blur. After duplicating the background layer twice, select the middle layer and use the Gaussian Blur filter (1). This can be found under Filter > Blur > Gaussian Blur. Adjust the slider (2) until the blur is enough to make this layer devoid of detail. Adjust the opacity of the layer (3) until it is at the degree of 'softness' you wish and use a layer mask to paint out with a black brush.

BOTTOM

Adding textural contrast: High Pass Filter. Select high pass filter by going to Filter > Other > High Pass (1). Adjust slider until detail and texture of the scene is visible (2). Change the blend mode of this layer to overlay in the Layers tab (3).



curve via the top left icon on the curves palette. Click on that icon then move the cursor over a bright part of the image and left click to insert a point on the tone curve. Move the icon to a dark part of the image and left click again and another point is inserted on the tone curve. You now have two basic points from which you can adjust the curve rather than guessing where to begin your adjustments. In the curves adjustment layer the steeper the curve at any particular point, the higher the contrast, the flatter the curve, the lower the contrast.

Step 2: At this stage any adjustment you've made is still occurring over the entire image. Our approach is to create a layer mask and fill the mask with black so that all of the effect is 'masked out'. We then use a white brush at low opacity to paint in the effect where desired. The advantage of using Photoshop



for the masking process is that complex masks such as luminosity masks can also be used to restrict the effect to varying degrees of lights, darks and mid-tones.

Step 3: One potential pitfall of tonal contrast adjustment is that blacks can be made too black and highlights can become ‘blown’. Luminosity masks are particularly useful if you want to ensure that the darks or blacks are not obliterated by the contrast adjustment. In order to do this, select a dark luminosity mask using Ctrl left click on the appropriate mask, then ‘fill’ the layer mask with black (Shift F5). You should now have an image with contrast affecting all areas except those dark tones you selected from the luminosity mask.

Step 4: It’s also important to note that at this stage the contrast adjustments you’ve performed have not only affected

“Luminosity masks are particularly useful if you want to ensure that the darks or blacks are not obliterated by the contrast adjustment.”

ABOVE

Twelve Apostles, Great Ocean Road. Taken at dawn on a windy morning. The rough seas were smoothed out with a long exposure, which created a misty feel at the base of the rocks. A long lens brings a more intimate atmosphere to the scene. Canon EOS 6D, Canon 70-200mm f/2.8L II lens, 63.0s @ f/11, ISO100. Benro tripod, cable release, ND filter. Colour, local contrast, 'orton' effect done in Adobe Photoshop CC. Image by Dylan Toh.



brightness values, but colour values as well. Severe adjustments of contrast can lead to significant colour degradation to the point of introducing artefacts. To avoid any colour shifts, I'd recommend working initially in luminosity blend mode which only affects brightness values. Once the mask work has been done on this layer, you can independently bring back some colour contrast by duplicating this layer (Ctrl or Command J) and changing the blend mode to 'colour'. The opacity of the 'colour' blend mode layer can then be adjusted to the level you find most appropriate for the image.

Textural contrast

Textural contrast establishes areas rich in detail which are accentuated by other areas of the image that are relatively smooth or lacking texture. This can be achieved through field techniques such as shooting for long exposure water cascading around textured mossy rocks. Similarly, long exposure skies (clouds) flying past a stationary building with texture also gives this effect. In terms of post processing, two possible methods of introducing this type of contrast are to either 'soften' certain parts of the image or to selectively sharpen various parts of the image to different degrees. One of the common ways of introducing a soft or glowing appearance to an image is to use

what is termed the 'orton effect'. Below is one (of many) methods used to achieve this effect.

Step 1: Duplicate your working layer twice (the background layer usually) and disable the top layer by clicking off the 'eye' icon.

Step 2: On the middle layer, introduce a very heavy Gaussian blur of approximately 20-40 pixels. Slide the opacity of the layer to approximately 10-30% depending on how much of the blur effect you would like. Increase the brightness and contrast until the bright parts of the image appear 'glowing'.

Step 3: Select a 'bright' luminosity mask from your panel/channels palette and create a layer mask on this blurred layer. You can modify this mask manually by painting with a black brush to remove the effect, or a white brush to re-include the effect on dark areas. You now have an image which is blurry and glowing, but lacking in detail. It's time to bring back some of that detail.

Step 4: On the top layer, create a high-pass filter and adjust the radius until you start to see details of the original unblurred image show through. This is best done while the image blend mode is 'normal'. Once you can see the appropriate amount of detail, change the blend mode of that layer to soft light for a mild effect or overlay for a more prominent effect. The result should be an image that is both soft yet retains details.

HOW TO Do More With Contrast



TOP RIGHT

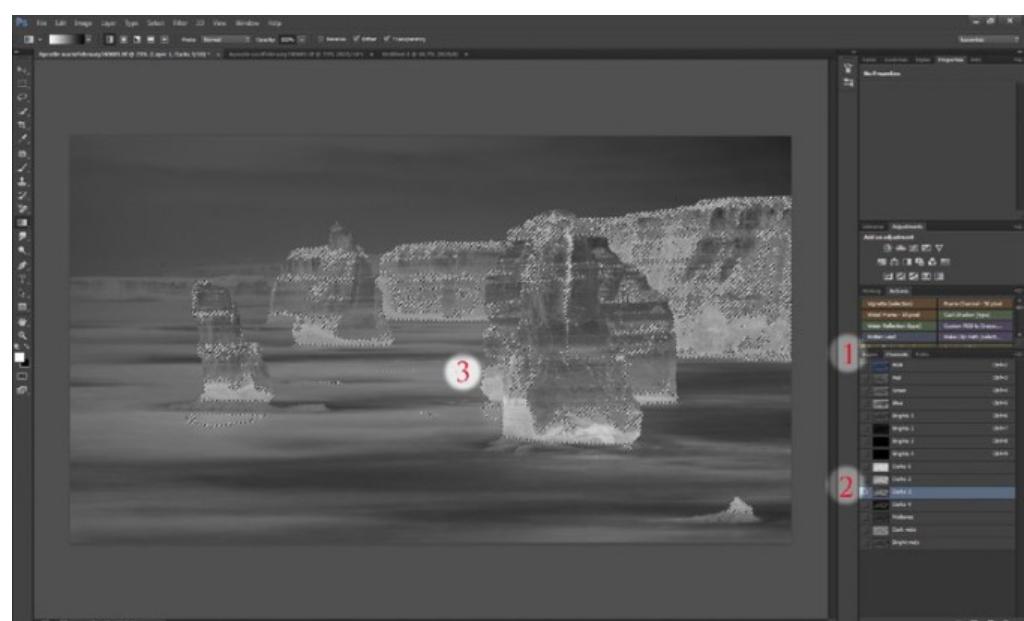
Exporting files as warm and cool layers. Top: Consider the warm parts of the image (1), such as the rocks, and adjust the temperature and tint sliders (2) in ACR or Lightroom. Export this file as the base image. Bottom: Similarly, consider the cool parts of the image (1), in this example the water, and adjust the temperature and tint sliders (2). Export this file as a layer on top of the base image.

MIDDLE

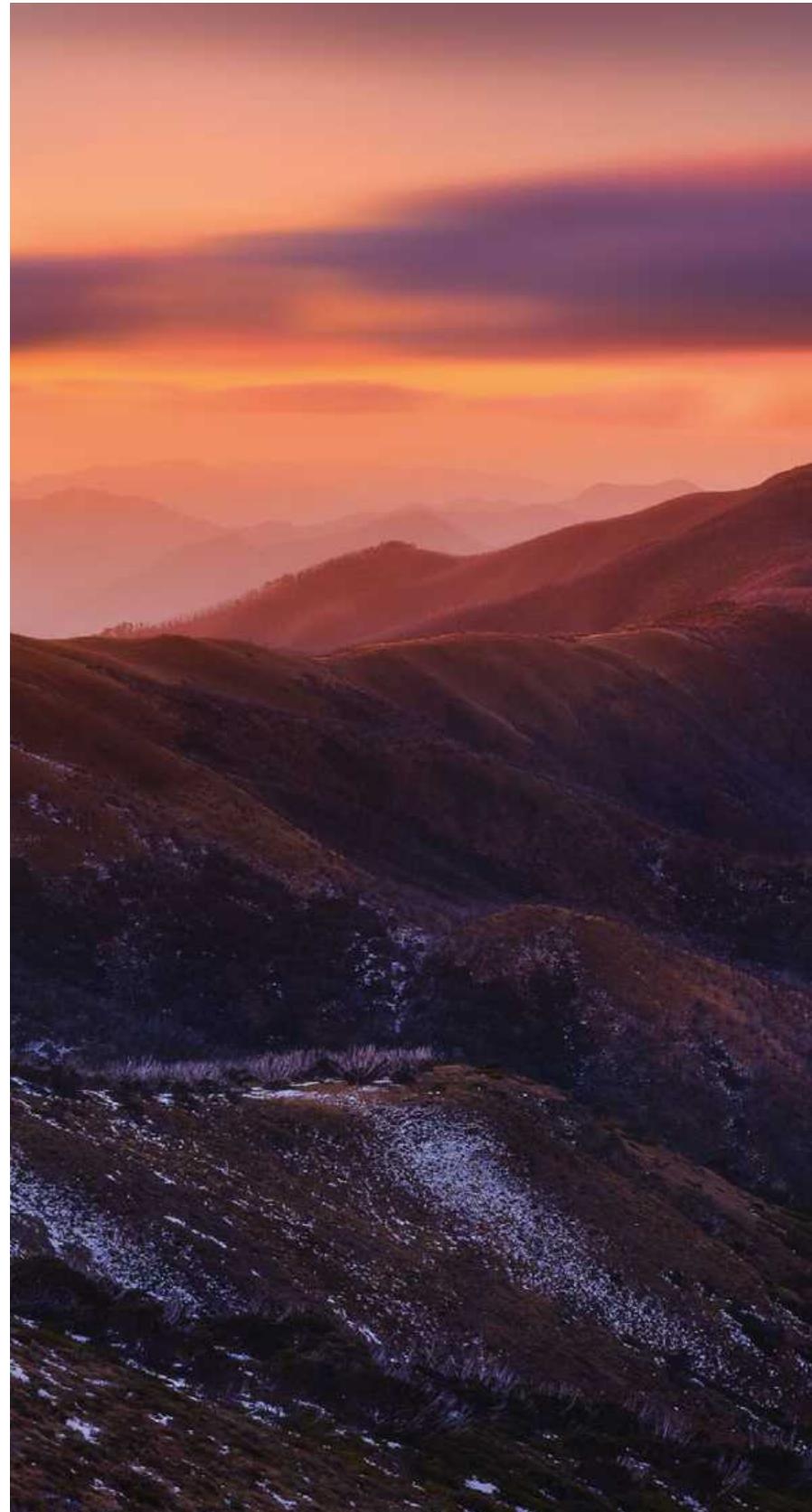
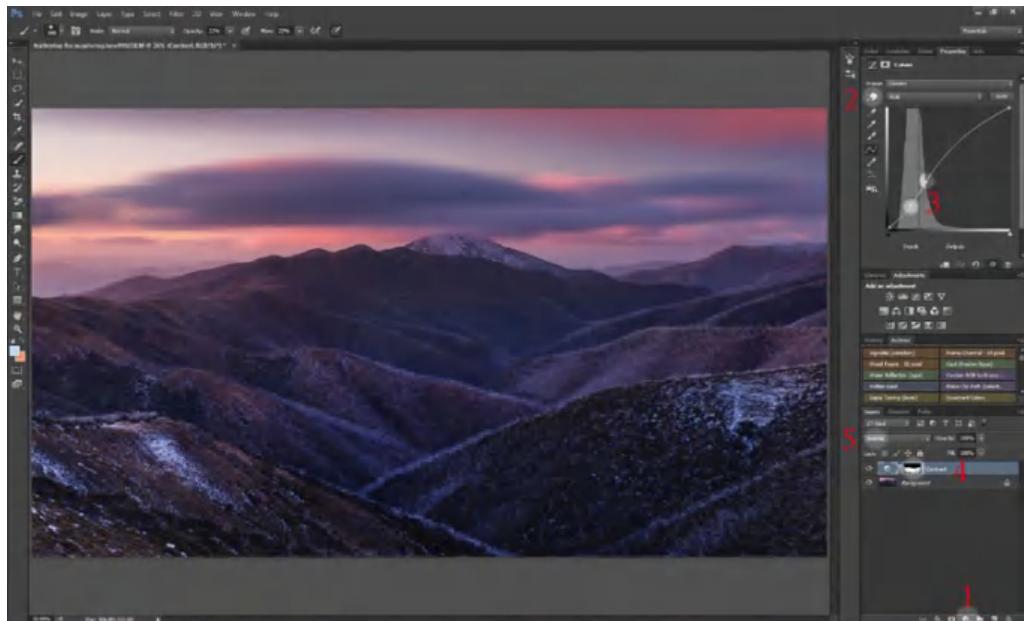
In Photoshop, open the Channels tab (1) or the Tony Kuyper panel if you have purchased it. Select the appropriate 'darks' channel (2) which best represents the cooler tones of the image. Ctrl-click selects this for you to use as a mask. The 'marching ants' (3) gives you an idea of the selection boundaries.

BOTTOM

Working palette for warm and cool layers in Photoshop. The cool layer should be the top layer in this example (1). The warm layer should be the background layer (2). With the selection you have made from the luminosity mask active, click on the layer mask icon (3). A layer mask (4) is created on the 'cool' layer which omits the bright parts of this layer (shades of black) and includes the cooler parts of this layer (shades of white). Select the brush tool (5) to make adjustments to the layer mask by 'painting' in either black to exclude the effect, or white to include the effect.



HOW TO Do More With Contrast



If the ‘orton effect’ is something which doesn’t appeal to you, you can still achieve textural contrast through selective sharpening of different areas of the image. The steps for this are the same except you can omit the Gaussian blur layer. On the high-pass filter layer you can then create a layer mask and paint out areas where you don’t want this effect. The most striking example of this method of sharpening would be to accentuate the textural difference between rock, foliage and long exposure water for a seascape or waterfall image. In this instance, the sharpening should be applied selectively to areas which would naturally have texture, like the rocks, while areas which have been deliberately made textureless through in-camera techniques could well be left completely unsharpened (for example, waterfalls). The advantage of using the ‘high-pass filter’ as a sharpening layer instead of unsharp mask or smart sharpen is that it is a ‘see through’ layer, meaning all other adjustment layers beneath it can still be seen in full effect.



Use of a background duplicate layer and other sharpening techniques creates a new solid layer where adjustments can only be seen if they are above that layer in Photoshop.

Conclusion

These three methods of contrast control can make a striking difference to the appearance of the image, which can result in an almost three-dimensional look. It's important to note however, that not all images will benefit from applying all three of these processes. It's one thing to know the techniques available for you – you'll be even stronger in post production if you know when to apply these techniques selectively. But the only way to learn is to experiment frequently so you'll have a rough idea of what will need to be done in post processing before you start. We hope this outline has provided you with some insight into how we achieve what we feel is a balanced and restrained approach to contrast adjustment. ☀

TOP LEFT

Adding tonal contrast using the Curves adjustment layer. Select the curves adjustment layer (1). Click on top left hand icon on curves adjustment layer (2). With the hand icon active, click on areas of the image for bright and dark. Two new points should appear on the curves histogram (3). Use a layer mask to refine which part of the image requires this adjustment (4). Review the blend mode (5) to check if the effect is desired.

BOTTOM LEFT

Examples of tonal contrast applied in different blend modes. Top: Luminosity blend mode, Middle: Normal blend mode, Bottom: Colour blend mode. The effects are subtle and affect different colours in the image. As shown, Colour blend mode renders the image a cooler tone than in Luminosity blend mode.

ABOVE

Mount Feathertop, Hotham, Victoria. Clouds obscure the peak of Mt Feathertop on a subzero morning. Canon EOS 5D MkIII, Canon 24-70mm f/2.8L II lens, 120.0s @ f/13, ISO100. ND filter, Benro tripod. Colour, contrast and sharpening done in Adobe Photoshop CC. Dylan Toh image.

Into the Underworld

Below the surface of the earth is a largely undocumented world of incredible photo opportunities. Photographer and caver Neil Silverwood takes us on an underground adventure and shares his best tips for shooting in this truly unique environment.

The underground is another world. Around 15 percent of the planet's surface is karst (limestone). Beneath this complex landscape covered in dolines (sinkholes), sinking rivers and towering rock pinnacles is an enormous network of passages and shafts created by subterranean streams and rivers. It's a place vastly different from the one we know. It contains enormous voids – the world's largest enclosed spaces, in fact – white-water rivers and delicate crystal formations which could only be created in an environment devoid of weather. Caves also contain an array of unique life forms which have adapted to living in perpetual darkness.

Many cave systems are extensive, and can seem almost infinite. But while almost every corner of the planet has been explored, discovery of our caves is still in its infancy. Cavers from around the world are now racing to explore the longest and deepest ones. Like the exploration of the world's great peaks, this is a difficult and risky undertaking. The longest systems are so extensive it can take days to reach the edges and cavers will live and sleep underground for up to a week. Little of this exploration has ever been recorded on camera.

But digital technology has changed the face of photography. Each day we're confronted with thousands of images and our senses are overwhelmed. As photographers we are drawn to environments that are unique. The key to good photos is to capture images with unusual lighting, from original angles, depicting scenes that viewers haven't seen before. For me, cave photography encapsulates all of this.

Australia and New Zealand has a diverse range of karst and caves. There are shallow areas of limestone throughout Australia, but Tasmania



A wide-angle photograph of a massive, dark cave chamber. The walls are composed of large, layered rock formations with prominent horizontal and vertical fissures. The lighting is low, coming from a single point source, which creates a dramatic play of light and shadow across the rock surfaces. In the lower right foreground, a caver wearing a red jacket and a headlamp stands on a rocky ledge. To the left, another caver is partially visible near a large, white, stalactite-like formation. The floor of the cave is covered in a thick layer of loose, greyish rock debris.

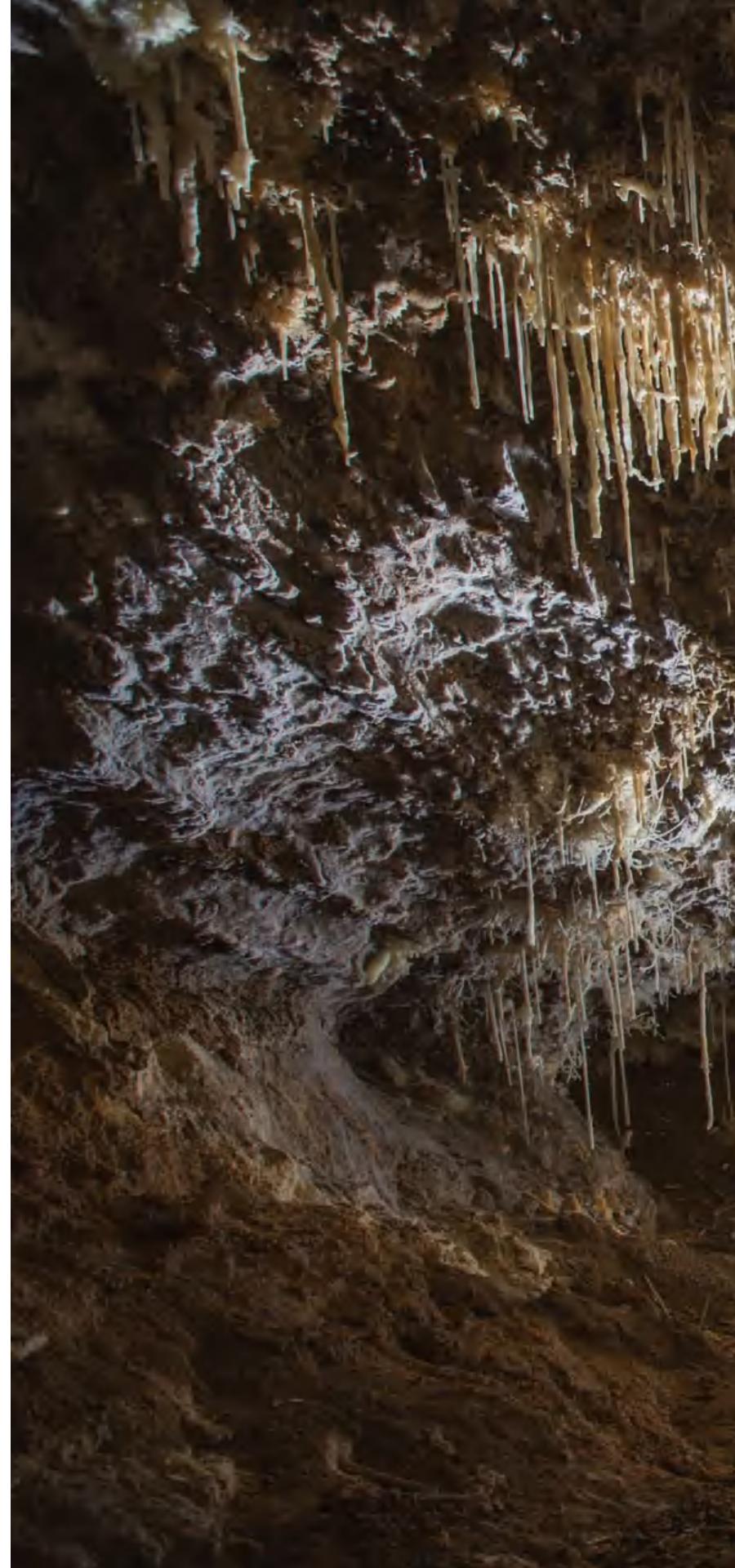
Hammer Heights is an enormous chamber in the Nettlebed cave system in New Zealand. This was a complex shot which took two hours to set up and shoot. Radios were used to communicate between the model and helpers. This is four separate shots later merged together in Photoshop CS5. The tripod kept the camera fixed in place and the models leapfrogged between frames. Each is lit with a single PF5 bulb. The caver in every frame is also backlit by an electronic flash. Kahurangi National Park, New Zealand. Canon EOS 5D Mk III, 16-35mm @ 16mm, f/2.8 @ 2-10 secs, ISO 800, tripod. Processed in Adobe Lightroom 4. Photoshop CS5.

BELOW

Cavers work together to cross a deep void on a five-day journey into Bulmer Cavern, New Zealand's longest cave system. The subtle lighting is from two flashes – one hidden below and one directly behind. Mount Owen, Kahurangi National Park, South Island, New Zealand. Canon EOS 5D Mk III, 16-35mm lens @ 26mm, 1/125s @ f/3.2, ISO 400, hand held, 2 Yongnuo YN 560 flashes with RF 603c radio triggers, 1@170°-1@180°. Processed in Adobe Lightroom 5.

RIGHT

Clusters of delicate aragonite formations decorate the ceiling of a passage in Bulmer Cavern. Another caver crouches behind the model, using her as a "human shield". The formations are almost entirely lit by the back light set on full power 1/1. The model is lit by a zoomed-in flash (scooped) set on 1/8th power. Mount Owen, Kahurangi National Park, South Island, New Zealand. Canon EOS 5D Mk III, 16-35mm lens @ 17mm, 1/60s @ f/6.6, 400, hand held, 2 Yongnuo YN 560 flashes with RF 603c radio triggers, 1@10°-1@180°. Processed in Adobe Lightroom 5.



is home to Australia's deepest, and some of its most interesting cave systems. New Zealand is also a 'Mecca' for cavers and it holds a diverse range of caves in lowland and alpine settings. It also has some of the deepest and longest caves in the southern hemisphere, including the newly discovered Stormy Pot (1195m deep) and Bulmer Cavern (72km long). Many of these systems require considerable experience to explore. Cavers spend years acquiring the technical rope skills to descend the vertical shafts that allow access to the massive systems below. However both New Zealand and Australia have a plethora of more accessible tourist caves. These range from simple walk-through trips such as New South Wales' Jenolan caves or Victoria's Buchan caves to more challenging trips such as Waitomo's Lost World epic – a 100m abseil into an enormous shaft and sporty streamway. There



are also companies such as Green Glow Adventures in Waitomo, which specifically accommodate the needs of photographers.

Equipment for cavers

Be prepared for dismal results on your first attempt at cave photography! Caves are high-contrast environments and camera sensors often struggle to correctly expose all areas of the picture. Often images will have burnt-out highlights and areas containing no recoverable detail. Don't be disappointed; with a little practice and good equipment you'll soon be able to get much better results.

Professional caving images take a large amount of work and involve a degree of risk. It's often very difficult if not impossible to go back and retake a photo so it's important to have the best

equipment available. This will give you the greatest chance of getting a good shot the first time around. I use a Canon 5D Mk III SLR with a 16-35mm lens. The full-frame CMOS sensor performs well in low light and has a usable ISO range between ISO 100 and ISO 3200. The actual range is from ISO 100-25,600. The body of the 5D is weather sealed and when used with an 'L' series lens and UV filter (which is essential underground) it's water resistant. A pelican case protects the gear in a harsh caving environment.

Generally I carry between three and five electronic flashes. Speedlights used underground have a short life expectancy. I've had over eight come to nasty ends, such as expiry by drowning and falling down crevices! I primarily use Yongnuo branded flashes like the YN 560 series. These are a good choice for cave photography



because they're inexpensive and compare well to similar Nikon and Canon brands. And if you do accidentally drop one down a deep abyss you won't have to re-mortgage your house to replace it!

Any flash used underground needs to have a manually adjustable flash output and zoom range. A built in, flip up, flip down diffuser is also vital. Flashes for caving need to be powerful, with a guide number (GN) in excess of 50. Guide numbers are a measure of the distance the flash will reach with a camera set at ISO 100 and f/1. Each time the ISO or aperture is stopped down by 1 the distance the flash will reach is halved. For example a flash with a guide number of 50, used with a lens set at f/1 and ISO set at ISO 200 will illuminate a subject 25 metres away. In caves this figure can usually be halved as the dark, wet rock absorbs light.

Most flashes take AA batteries or have an attached Lithium-ion battery. The capacitor in the flash slowly drains the power from the batteries and then stores up a large charge of several hundred volts. When triggered it releases an intense light which lasts for approximately 1/1000th of a second. As you can imagine, using a device capable of producing a charge of several hundred volts around water might not be good for your health. So, though it can be difficult in caves, avoid getting the flashes wet!

To fire the flashes off camera I use Yongnuo RF series radio triggers. They're inexpensive and reliable. I've found they will work consistently underground up to 50m away from the camera.

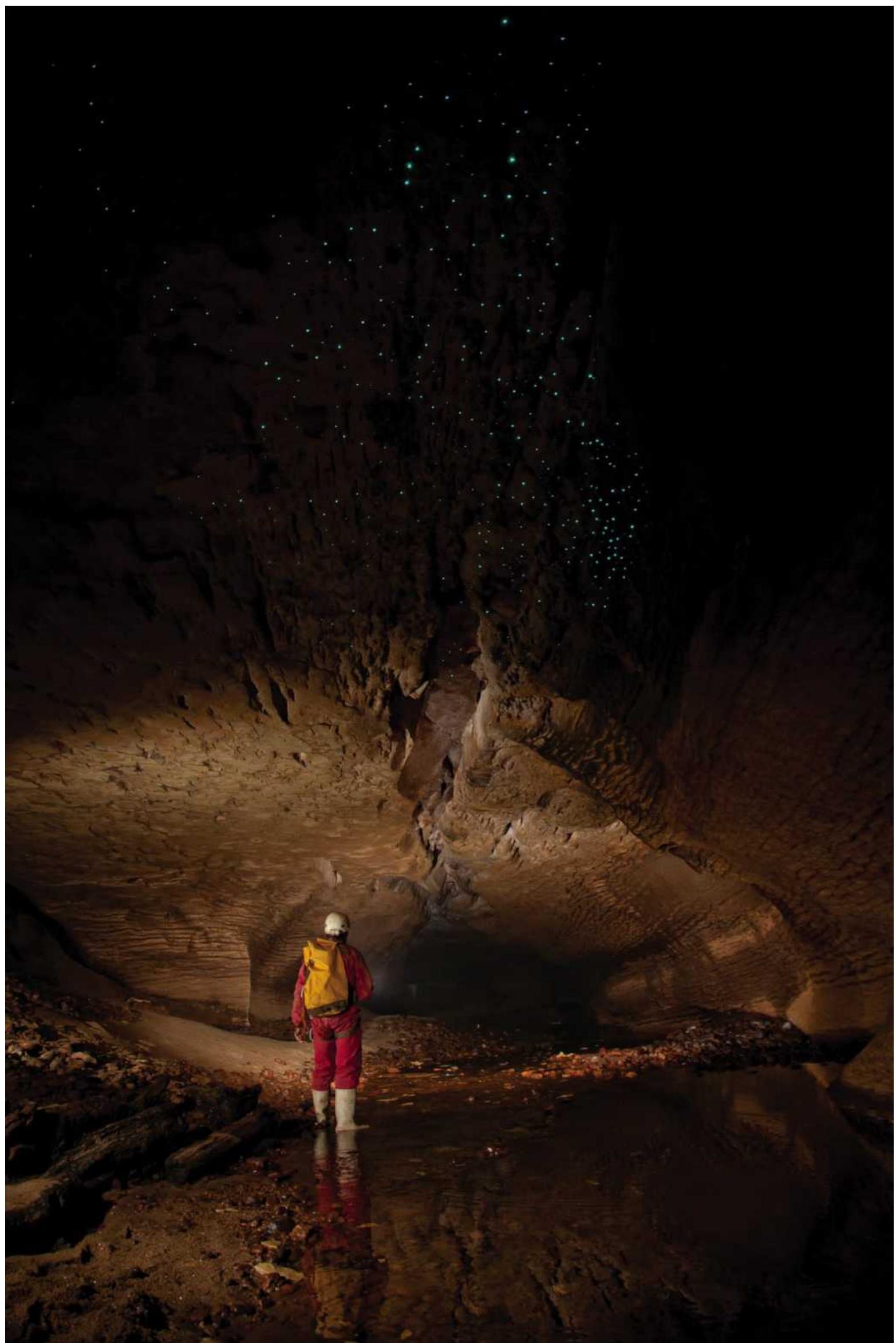
Flash bulbs are another piece of indispensable equipment. About once a month I troll through eBay and trademe (the NZ

equivalent to eBay) searching for antique flash bulbs. These produce a warm light with a slow burn time. Each vacuum-sealed bulb has a filament which burns slowly (about 1/30s) and produces a warm, soft light. While the guide numbers produced are similar to electronic flashes, the span is much wider and the actual overall amount of light produced is greater. Every time I fire a bulb though, I feel a little pang of guilt because they're now considered antiques! When using bulbs, set your camera on a tripod and keep shutter speeds below 1/30s to allow for that slow burn time. To fire the bulbs I use antique flash bulb firers. Again, these are readily available on eBay. Once purchased, you will need to replace the capacitors and rewire the flashes so that they can work with available batteries.

Shooting techniques

Cave photography can be very frustrating, but it's also rewarding. Unlike other forms of photography we start with a blank canvas and we have complete control over the light. Photographers underground don't have to wait for perfect light and they're not affected by the weather. Caving images capture a unique world. But getting strong images underground requires a lot of preparation, equipment and patience. Let's look at some techniques.

To start, remove the flash from the camera. The humidity in caves is between 90%-100%. The light from on camera flashes hits tiny droplets of moisture and creates an image covered in spots. It also illuminates the area directly in front and creates a



OPPOSITE
Babylon cave's monster-like entrance is awe-inspiring. Cavers descend into the throat of the beast. Daylight only penetrates a short way in and a caver illuminates the large passage beyond with a flash bulb. As only two helpers were available I took two separate images while the camera remained fixed in place. These were then merged together using StarStaX. Paparoa National Park, New Zealand. Canon EOS 5D Mk III, 16-35mm lens @ 16mm, 0.6s @ f/8, ISO 800, tripod, 1 PF 1 flash bulb. Processed in Adobe Lightroom 5, stacking in StarStaX.

LEFT
Glow worms attract many tourists to New Zealand's limestone caves. This show cave on the South Island's West Coast is also open to recreational cavers. The photo was taken on a solo trip into the cave. The shot is lit by two flashes, one balanced off to the side of the camera and one held by the model (the photographer). The shutter is open for 20 seconds to allow the glow worm light to 'burn in'. Metro Cave, Paparoa National Park. New Zealand. Nikon D90, 16-85mm lens @ 16mm, 20s @ f/6.3, ISO 400, tripod, 3 Yongnuo YN 560 flashes with RF 603c radio triggers. Processed in Adobe Lightroom 4.



LEFT

Fluorescein is placed into a cave streamway to track the water flow as it passes between different cave systems. It's a strong, safe dye and is detectable in up to two parts per million. The shot is lit by a powerful backlight placed five metres behind the caver, with a weak front flash. The further back the backlight is from a subject the more throw a flash will have. Mount Owen, Kahurangi National Park, South Island, New Zealand. Canon EOS 5D Mk III, 16-35mm lens @ 16mm, 1/60s @ f/6.3, ISO 800, hand held, two Yongnuo YN 560 flashes with RF 603c radio triggers. Processed in Adobe Lightroom 5.

RIGHT

A caver's light trails through an ancient fossil passage long abandoned by the stream which created it. Captured on a solo trip into Hole in the Hill Cave, the model is illuminated by a single flash bulb fired at the end of the exposure. To avoid ghosting, place the subject in front of a dark area. Nikon D90, 16-85mm lens @ 16mm, 8s @ f/14, ISO 200, tripod.

flat, nearly shadowless light. It's essential to use an off-camera flash in conjunction with a stretchy sync cord.

Use a diffuser. This will soften the harsh flash and more evenly light the subject. Using a diffuser and holding the flash out at arms length is a great technique to capture action shots such as cavers going through squeezes, digging, and ascending ropes. It's quick to set up and highly effective. But if you want to tackle more complex shots like cave formations or a large chamber, you'll need to get the flash or flashes even further away from the camera. This is where radio triggers come into play.

Radio triggers allow you to place several flashes in a shot and fire them simultaneously. Knowing where to place these takes experience and, to a degree, some luck. There are a couple of formulas I've found that work. First off, the backlight should almost always be the main light source. Place a flash on full power behind the subject, pointing towards the camera. Use the subject as a shield between you and the flash. Put your camera on a tripod and manually focus, then adjust the settings on your camera until most of the shot is correctly exposed. Then add in more flashes one by one that will fill in the dark areas in the shot. Care should be taken to avoid the front flashes overpowering the back light. Scooping the light or zooming the flash in can help a lot. This is the formula I use for the many of my shots.

Put simply, backlighting creates interesting light. It illuminates subjects in a very effective way. It does, however, create harsh shadows and dark areas that need to be offset by a front light. Cave formations can look terrific when lit by a strong back light. Light refracts from the crystals and creates interesting effects. The same shot lit by just a front light will often look flat, dull and lifeless.

Flash bulbs are a wonderful tool for lighting up large passages and chambers. Place a human subject on a prominent point such as a rock and fire the bulb away from the camera. The light from the flash should silhouette the subject against the background. Having a person in the shot gives the picture scale and the flash paints the cave walls in a warm soft light. Adding a backlight directly behind the subject can also create an interesting effect.

If you only have one or two helpers you can keep the camera on a tripod and move the subject into different positions, shoot several

Caving conservation

Caves are extremely fragile environments. Formations grow incredibly slowly, centimetre by centimetre. Stalactites have been found that have been dated to over a million years old. If you're lucky enough to photograph a wild (non-commercial) cave, extreme care needs to be taken to preserve its integrity. I once watched an experienced caver line his camera up on a massive aragonite crystal formation. He then stepped backwards looking for a better angle and his head crashed into another similar formation, completely destroying it. These crystals were unique to the cave and there were only about half a dozen. The formation will likely never grow back, not in our lifetime anyway. So move softly and carefully! Never risk damaging formations for the sake of a shot. Move slowly in fragile areas and ask your helpers to do the same. Also take care of your own safety. Carry three light sources, leave good intentions, and always check the weather before heading underground. Obviously the weather conditions won't directly impact you, but heavy rains can lead to increased underground water flows, which could impact on your cave.



frames and merge them later (some cameras allow you to do this in camera). Another variation of this for people who like to experiment is to leave the shutter open for a period of time and ask a model to wander around a passage leaving light trails streaked across the shot. Experimenting with cave photography is half the fun!

A few years ago, while learning how to use my first digital DSLR underground, I set up an ambitious shot in an enormous passage, over 50m wide and nearly as high. I placed subjects, each with an electronic flash in a row down the passage, with the furthest some 200m away. The results were dismal. Then one of the team suggested that I open the shutter for five minutes and they would all just walk around firing flashes. I humoured him and agreed, though with a degree of scepticism. The resulting image was actually the best shot of that expedition and it ended up being published around the world. So the lesson is to experiment – you just never know!

Working with people

People are your greatest asset underground and a good cave photograph is usually the sum total of a team's efforts. Cave

photography trips are known for being both cold and time consuming. I try and work with people who have patience and simply enjoy being underground. Get your models to wear bright colours – red and yellow overalls look great. Mix it up. It's great to have a variety of different people in the shots. On cave photography trips it's very easy to become focused on the task and neglect the needs of the team. I once heard of a cave photographer who bought nice cheeses and took expensive red wine (in a plastic bottle) to coerce helpers. You don't have to go to this level, but you do need to think about your team.

Conclusion

If you're new to cave photography this will be one of the most challenging and rewarding hobbies you've encountered. Good equipment is essential and it will improve your results. The unique images created will make all the hardships and risk worth it. While peoples' first forays as cave photographers can be frustrating, your results will improve quickly as you learn how to predict the effects of artificial light. Stay safe out there and I offer you the best of luck. You'll need it! ☺

HOT SHOTS





PHOTO BY NEIL SILVERWOOD.

HOT SHOTS





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HOT SHOTS





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Need for speed

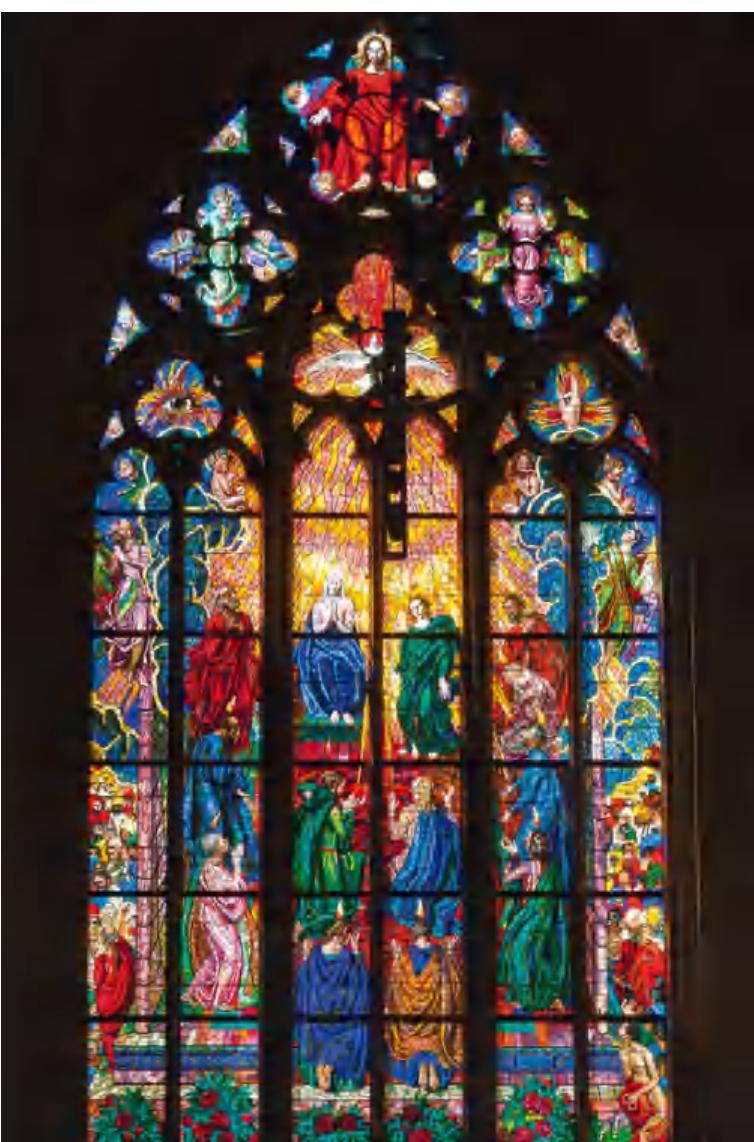
Is it time to trade your kit zoom lens in on something faster? As Peter Burian explains, the extra cost might take some getting used to, but there are benefits to be had in terms of image quality and low-light performance.

MAIN

I walked for eight to ten hours a day without a tripod. I relied upon my lenses' wide f/2.8 apertures to minimise the risk of blur from camera shake. This allowed me to shoot at adequate shutter speeds to get sharp images. Nikon D800, 15-30mm, 1/10s @ f/2.8, ISO 320; vignette correction in software.

RIGHT

With a high-grade f/2.8 lens, image quality at maximum aperture typically ranges from impressive to superb. While edge sharpness is rarely as high as central sharpness at this 'f' stop, it's generally quite acceptable.



Because most digital SLR camera owners demand compact, lightweight lenses, most zooms feature a small maximum aperture. That applies to telephoto zooms as well. A typical zoom lens is designated as f/3.5-5.6 or f/4-5.6, indicating the maximum aperture is quite small at the short end and becomes very small at longer focal lengths. In practical terms, that translates to a moderate light gathering ability. On the other hand, some lenses boast a much wider maximum aperture of f/2.8 – available at all focal lengths – which offer significant benefits that I'll discuss later.

For a stock photography trip I recently did through Europe with a full-frame Nikon D800, I took three f/2.8 lenses – an ultra-wide 15-30mm, a “normal” 24-70mm zoom and a 70-200mm telephoto. These were Tamron models, but you can find



ultra wide, normal and telephoto f/2.8 in several other brands. They're available for DSLRs with a full-frame or smaller sensor and also for mirrorless cameras. A few zooms offer an even wider maximum aperture, such as the Sigma 24-35mm f/2 DG HSM for DSLRs. Since f/2.8 is a far more common maximum aperture, let's take a look at the many advantages of this type of so-called "fast" zoom lens.

Low-light benefits

Serious shooters appreciate f/2.8 telephotos because they allow you to shoot at faster shutter speeds. Granted, this may not be an issue on bright, sunny days even at f/5.6 when using ISO 200, for example. In much darker locations, however, a very wide aperture can be a blessing. Let's say you're shooting a sports

event in an indoor arena. If a lens' widest aperture is f/5.6, you might need to use ISO 6400 to freeze the competitors' motion. Switch to a 70-200mm f/2.8 zoom and you could achieve the same action-stopping effect at ISO 1600.

Note, too, that the wide maximum aperture is constant with nearly all "fast" zooms; it's available at all focal lengths. This is a definite benefit against the more typical zooms whose maximum aperture becomes smaller as you shift to longer focal lengths. With a constant f/2.8 aperture, the exposure time will not become longer as you zoom from 70mm to 200mm (to compensate for the increasingly smaller aperture) for example. An image made at a lower ISO level will exhibit less digital noise: the "grainy" pattern of random, coloured specks that can obliterate intricate detail. While Noise



Reduction processing (in the camera or in a computer) can provide smoother high ISO images, the effect is achieved by blurring the “grain” pattern. But this also smudges fine detail, reducing resolution. On the other hand, a low ISO image be “cleaner” – with less obvious coloured speckles – and more richly detailed.

Recently I was shooting street scenes, cultural events and architecture in Europe, and I found the wide aperture was most useful for a shutter speed that would minimise blurring from camera shake. A tripod would have been ideal, but that accessory is prohibited in locations such as St. Stephan (a cathedral) and Schönbrunn (a palace) in Vienna, Austria. It was also impractical to use a tripod on a busy urban street. In dark locations ISO 1600 often allowed for a 1/60s shutter speed at f/2.8. At the long end of a 24-70mm lens, this minimised blurring from both camera shake and from the movement of people in the scene. With a lens that offers a smaller maximum aperture of f/5.6, ISO 6400 would have been required for shooting at 1/60s.

Optical & build quality

Because many wide aperture lenses are prosumer or professional grade products, they usually feature high-grade optical elements for better image quality. This applies to the many of the constant f/2.8 aperture models. They use at least several large pieces of low-dispersion glass and/or aspherical glass for optimal image quality, even at f/2.8. The high-tech elements are designed to correct optical aberrations for high sharpness at f/2.8 and also to minimise distortion. An increasing number of inexpensive zooms also use high-tech elements, but typically, only one or two pieces of a small size. But most f/2.8 zooms use more such elements, of larger diameter, and often with superior types of glass. For example, the Canon EF 70-200mm f/2.8 L IS II USM zoom includes a very expensive fluorite element plus five pieces of ultra-low dispersion glass. And the Nikon AF-S 17-35mm f/2.8G ED model is made with two large extra-low dispersion elements plus three aspherical elements made of ground glass (not plastics). Both provide stunning image quality across the frame, even at f/2.8, at all focal lengths.



“Because many wide aperture lenses are professional grade products, they usually feature high-grade optical elements...”



MAIN

While the more portable f/4-5.6 (or similar) zoom lenses satisfy many amateurs, the heavier f/2.8 constant aperture models target pros and photo enthusiasts who insist on fine image quality. Using a well-designed, comfortable sling pack, I rarely found the weight of the three lenses and the camera to be a problem. Nikon D800, 70-200mm f/2.8 lens.

ABOVE

With a high-grade f/2.8 lens, image quality at maximum aperture typically ranges from impressive to superb. While edge sharpness is rarely as high as central sharpness at this ‘f’ stop, it’s generally quite acceptable. In any event, the viewer’s primary focus is rarely at the periphery of the image.

RIGHT

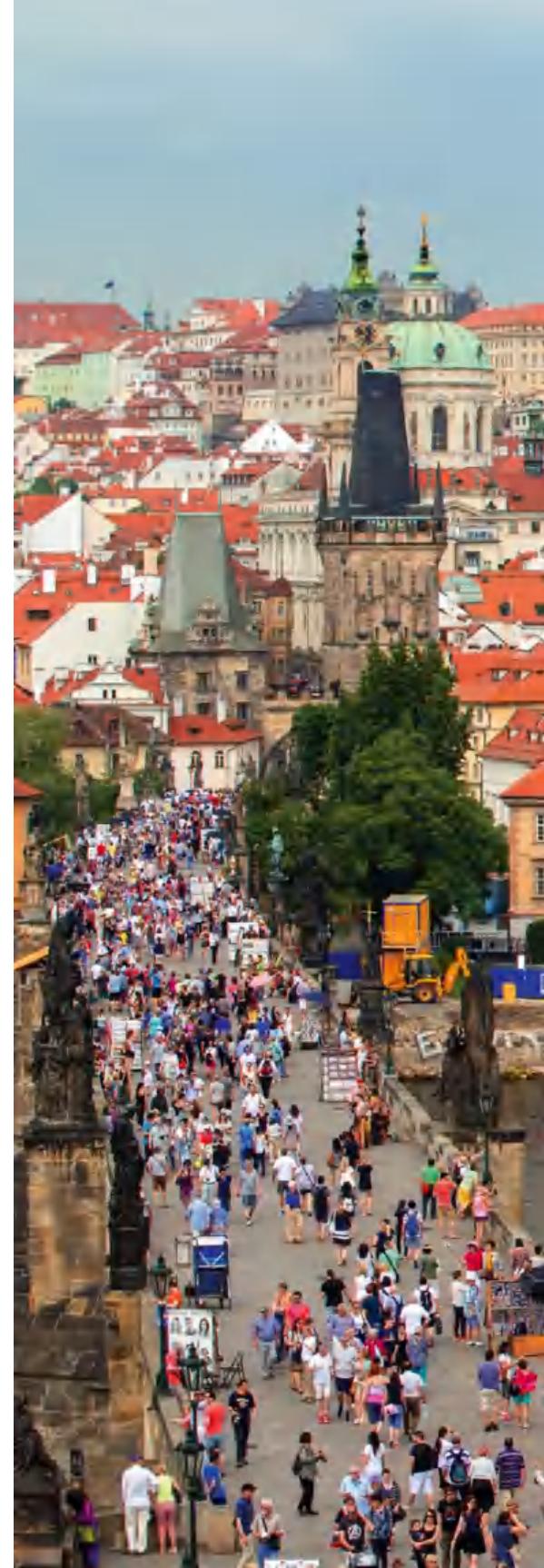
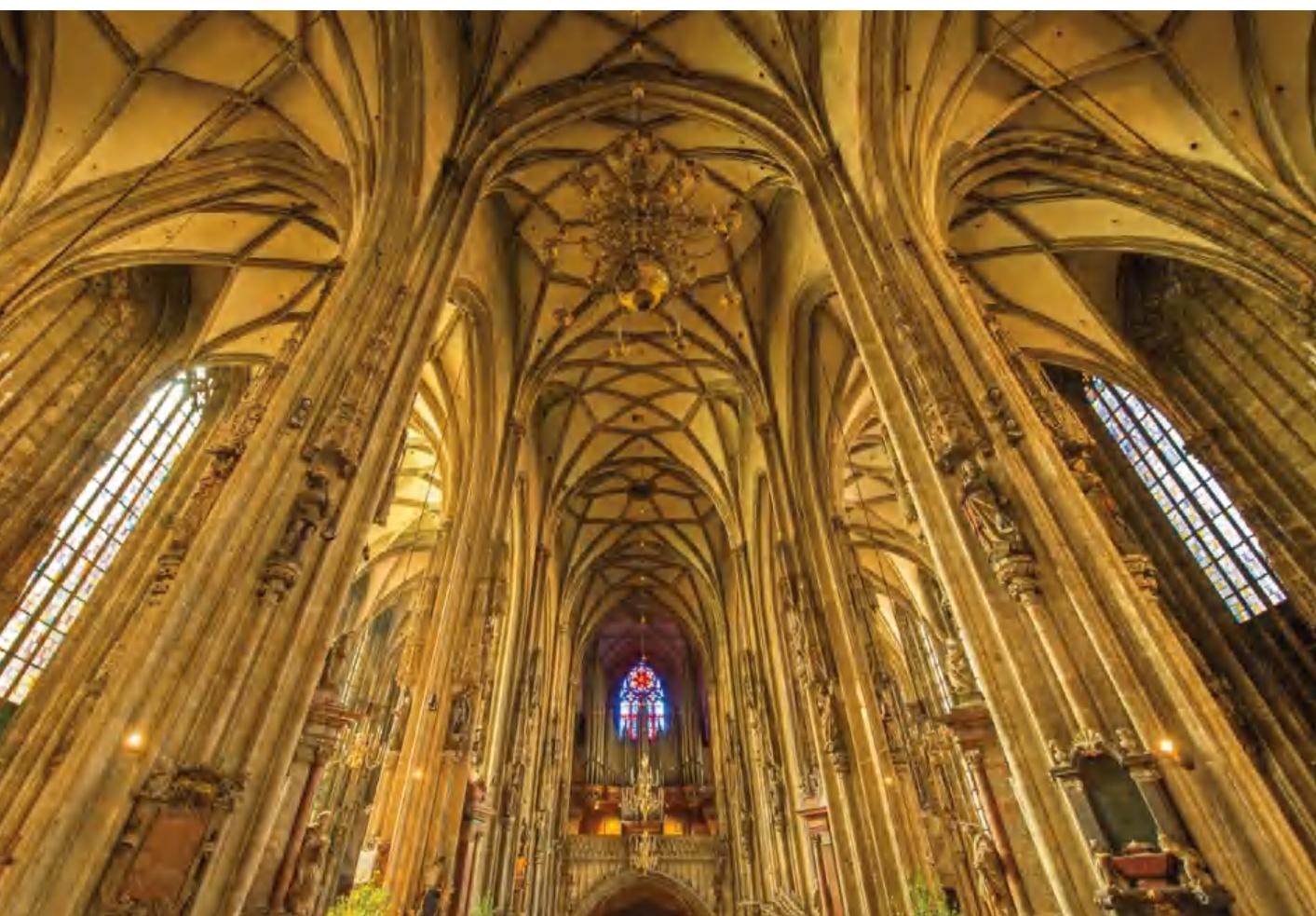
The three f/2.8 lenses I was using in Europe, like most zooms in this category, were of pro calibre, producing images with exceptional colour rendition, contrast and resolution. Particularly at f/5.6 or f/8, edge sharpness equalled central sharpness, with impressive resolution of intricate detail. Nikon D800, 70-200mm f/2.8 lens.

BELOW

Although it seems bright in this photo due to the exposure I used, Vienna's spectacular St Stephan cathedral is actually very dark, and tripods are prohibited. This was but one of the many locations where an f/2.8 lens was highly desirable, allowing me to photograph without the need to use a very high ISO level. (Nikon D800, 15-30mm f/2.8 lens, 1/10s @ f/2.8, ISO 800. Vignette correction in software.

RIGHT

Constant-aperture lenses generally produce images with exceptional colour fidelity, contrast and resolution. In my tests I've found them to also capture outstanding detail. Particularly at f/5.6 or f/8, edge sharpness equalled central sharpness, with impressive resolution of intricate detail. Nikon D800; 24-70mm f/2.8 lens, f/8.



With the lenses I carried, f/2.8 was often useful for recording the vast, dark interiors of Gothic churches. My images exhibit outstanding sharpness, even at the edges of the frame. Darkening at the corners (light fall off or vignetting) is quite common with most zoom lenses of most brands, particularly at wide apertures. Fortunately, that's easy to fix with imaging software which includes a vignette correction utility. Moderate size and weight are important attributes in mass-market zooms, but the f/2.8 models have superior construction and mechanisms. Hence they tend to be more rugged. Some are even weather and dust resistant, including the lenses that I used with a DSLR that's also well-sealed against the elements. This aspect was ideal during rainy evenings while shooting in the historic quarters of Prague and Amsterdam.

Focus & depth of field

A fast lens transmits a great deal of light to the camera's viewfinder and the autofocus sensor, making it easier to focus in low light. Manual focusing is less problematic than it would be with a small aperture lens because the view is brighter. That

can be very useful when shooting inside a dark home, a theatre, a cathedral or a castle. Autofocus is quicker and more reliable in dark locations as well. It can make AF possible in situations where the camera would baulk if you were using a more typical f/4-5.6 zoom. With the f/2.8 lenses I was using, autofocus was always successful, even in very dark areas of the Oude Kerk (church) in Delft, Netherlands.

There's another benefit to using an f/2.8 lens especially at focal lengths of 135mm or longer: the depth of field is shallower at the wider aperture. The narrower range of acceptably sharp can be useful. It allows for keeping a nearby subject sharp while defocusing a cluttered background, throwing it all into a wash of colours. The effect is most obvious when the subject is no more than two metres from the camera. When it's sharply framed against a soft backdrop, the centre of interest immediately attracts and holds the viewer's attention.

Note: Do not interpret a "defocused" foreground or background as a sign of poor optical performance at f/2.8 at telephoto focal lengths. It's caused by the shallow depth of field at f/2.8. That aspect also makes it essential to focus carefully on



the most important subject element, such as the eyes – instead of the tip of the nose – in a portrait photo. With an ultra wide-angle lens however, it's easy to make images with extensive depth of field at a very wide aperture.

The bottom line

As I've already hinted, the wide-aperture zooms aren't ideal in every respect. They're large, and hence heavy, because of the oversized diaphragm needed to accommodate an aperture of f/2.8. Rugged construction, with metal components, also increases the weight. Because of the greater amount of materials – especially for the large optical elements – they're also more expensive. Hence, the f/2.8 lenses aren't as portable or as affordable as their more easily carried f/4.5-5.6 or similar counterparts. Making up for the drawbacks, a fast, constant aperture zoom provides the benefits already discussed. Most important for my needs was the image quality ranging from excellent to superlative. In fact, some of my best images from Europe made for A1 size (594 x 841mm) custom prints which look stunning on the walls of my home. Visit a photo retailer to

check out some fast zooms. Take a few shots indoors and note that the shutter speed is adequately fast at f/2.8 without a very high ISO level. This hands-on experience will also establish whether you'll be comfortable with a hefty lens, especially a 70-200mm model which can weigh between 1 and 1.5 kg. While I appreciate the benefits of great portability, the three f/2.8 zooms I used were ideal for making images which would satisfy even discriminating photo buyers. Of course, you need not be shooting professionally to appreciate the advantages of a fast zoom with high-grade optics and construction. If you're an experienced shooter, or a budding enthusiast who is ready to produce superior potential quality, you may be a candidate for at least one such lens. Though not inexpensive, this category of lens will provide great value, paying dividends with features and technology that complement your creative vision. ☀

Our North American correspondent, Canadian stock photographer Peter Burian (www.peterburian.com) is the author of several books including *Mastering Digital Photography and Imaging* as well as guide books to many enthusiast-level cameras and their accessories.

Nikkor

AF-S 300mm f/4E PF ED VR lens

Thanks to a technology more commonly associated with lighthouses, Nikon's new 300mm lens is surprisingly small, writes Anthony McKee.



Nikon's new telephoto lens, the Nikkor AF-S 300mm f/4E PF ED VR, is a big unit in a small package. The lens features a Nikon designed Phase Fresnel (PF) element, similar to the Fresnel lens technology used in lighthouses and stage lighting to dramatically reduce the distance required to focus light from distant objects. This not only allows Nikon to make the new lens shorter (the 300mm f/4E PF lens is 147.5mm in length by comparison to the 300mm f/4D lens at 222.5mm), but it also dramatically reduces the weight of this new lens by half, to just 755 grams. To appreciate how small the new 300mm f/4 PF lens is, it's similar in length and yet 145 grams lighter than the popular Nikon 24-70mm f/2.8 zoom lens.

The practical advantages of this new lens almost go without saying. It's so compact you can keep it on your camera, or carry it about in a small bag all day without it being a burden. And if you are an adventure, wildlife or a landscape photographer who regularly travels over difficult terrain looking for the perfect shot, the ability to

save 750 grams on gear might give you the option to carry an extra day's food away with you. Portrait and street photographers can also enjoy this lens. Unlike most telephoto lenses, the 300mm f/4E PF is discreet enough that you can use it in a crowd without making people feel like a target. Unlike its predecessor, the new Nikon 300mm f/4 PF lens also features Vibration Reduction which can reduce camera shake by up to 4.5 stops. Technically this can let you hold the lens to shutter speeds as low as 1/15s, and in testing I was easily able to achieve this in most conditions. A switch provides three different VR settings: Off, Normal and Sport. Two other switches are a focus limiter (Full or Infinity to 3m) and a focus mode switch (A/M M/A and M).

Two other key features are an electronically controlled aperture mechanism which helps to improve exposure consistency, and an internal focusing mechanism which is not only fast, but also maintains the balance of the lens during focusing. Minimum focus distance on the lens is 1.4 metres, with a maximum magnification of 0.24x. The one feature



LEFT

Nikon's 300mm Fresnel telephoto lens can be very useful for candid street photography, as well as for wildlife and sports action images.

that is absent from the 300mm f/4E PF is a tripod collar, although the lens is small and light enough the most photographers will be satisfied using this unit with the camera itself attached to a tripod.

Image results from the new lens were exceptional. Wide open, the lens delivers solid corner-to-corner sharpness and this remains the case through to about f/16, when you start to notice slight softness due to diffraction. One of the key advantages of the Phase Fresnel element is that it cancels out most chromatic aberration (colour fringing), which is common in many lenses. While blue light typically folds inwards more than red light with conventional lenses, with Fresnel lenses it is the red light that folds in first. Add a Phase Fresnel and a conventional optic together and you come close to neutralising the chromatic aberration.

The one concern some people have with Fresnel lenses is the optic's potential to scatter unwanted light in some extreme lighting conditions. After three months of testing in a range of conditions, from shooting into sunsets and working

around bright event lighting, I haven't yet experienced noticeable problems. In short, this lens is a gem. The only issue I've experienced is a slight problem with the vibration reduction when using the lens on my D810 SLR; this was a fault with the first batch of lenses which has since been resolved.

Is this lens as sharp as the Nikon 300mm f/2.8 VR II? I haven't had an opportunity to directly compare the two. What I can compare though, are the weights and prices of the two lenses. The 300mm f/2.8 VR II weighs 2.9 kg and costs \$7,700 while the new 300mm f/4 PF is just a quarter of that weight, and has a street price of \$2,700, a difference of \$5000! Having used the 300mm f/2.8 regularly enough over the years, I appreciate the extra stop of light and the extra shallow depth-of-field, but it's not a lens I would carry about all day, every day. By comparison, the 300mm f/4 PF is a lens light enough to live in my camera bag, and for that reason alone I'm going to get a lot of use out of it. ☺

More information: www.nikon.com.au

Specifications

Lens: Nikon Nikkor AF-S 300mm f/4E PF ED VR

Vibration Reduction: Provides 4.5 stops of support. Three settings: Off, Normal and Sport.

Mount / Format: Nikon F/ Full Frame (FX) coverage.

Filter Size: 77mm

Angle of View: 8-10 degrees (5-20 degrees on DX format)

Hood: Nikon HB-73, Supplied

Focus Range: 1.4-metres to Infinity. Focus lock from 3 metres to infinity.

Dimensions: 89 x 147.5mm

Max magnification: 0.24x

Weight: 755-grams

Aperture: 9-Blade, rounded, f/4 – f/32 electronically controlled aperture.

Price: \$2,699

Results

HANDLING ★★★★★

The Nikkor AF-S 300mm f/4E PF ED VR is a dream to handle. Its compact size combined with internal focusing allows a user to concentrate on making images rather than trying to hold the lens. The Vibration Reduction also allows them to work with this lens handheld to achieve shots that would normally require more setting up.

FEATURES ★★★★★

A lack of the tripod collar (available as an optional extra) might upset some photographers, but in reality, you don't need it. Otherwise, between the weather sealing, vibration reduction, electronic aperture control and a minimum focussing distance of just 1.4 metres, this lens can cope with most situations.

IMAGE QUALITY ★★★★★

Regardless of the conditions, this lens is capable of delivering brilliant images that are corner-to-corner sharp. Although I never get preoccupied with it, the bokeh is simple and very pleasing. This lens shines, particularly in the mid-to-near distances, and it's well suited to Nikon's current range of high-resolution sensors.

VALUE FOR MONEY ★★★★★

With a price tag of about \$2700 the Nikkor AF-S 300mm f/4E PF lens is about \$850 dearer than the old 300mm f/4D lens, but it's a lens that you're likely to get a lot more use out of, simply because you are going to take it everywhere.

FINAL WORD

The Nikkor AF-S 300mm f/4E PF ED VR is a ground-breaking lens, not just for Nikon, but for Phase Fresnel optics. Nikon has taken the idea that Canon originally introduced with the DO lenses a decade ago, and made it its own. Chances are we can expect to see even more of this technology in the future, but for now, the Nikon 300mm f/4E PF lens is the ultimate compact telephoto to own.

SCORE
9.5

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Change of Direction



I'm a keen photographer whose work covers a number of different genres, with landscape, street shooting and weddings as my key areas of interest. I joined the APS in 2008 and took up photography seriously after taking some time off work with the intention of going back part time after I'd caught up with a few items on my "bucket list". However, after the Victorian country town of Marysville was burnt to the ground in February 2009 as part of Black Saturday, my life took another direction. I worked with the community recovery committees there during the rest of 2009. In 2011 I went on a course conducted by Dr Les Walkling at the Centre for Contemporary Photography in Melbourne. I enjoyed it so much that shortly afterwards I started the Advanced Diploma in Photography at the Photographic Studies College in Melbourne. I'm now in my final year doing a Fine Art major – who would have thought? I now alternate my residence between Marysville and Melbourne. I'm a member of the Australian Institute of Professional Photographers (AIPP) and I have been awarded the honours of FAPS and AFIAP through competition. I found this a great way to improve my own practice by looking at the images of others in the catalogues. I enjoy printing images and I often enter the print salons. Overall I have found a wonderful community of like-minded people in photography, and I work part time in the field exhibiting and shooting as a professional. The highlight for me has probably been the recent awards of Gold, Silver Distinction and Silver at the Victorian AIPP awards in May this year. I also recently had a solo exhibition at Gallery 34 in the Victorian north-eastern country town of Yea. (See Marysville Photography – www.marysvillephotography.com.au) ☀



**CLOCKWISE
FROM LEFT**
Foggy Dawn
Val D'Orica;
Shearer; Derrick,
Pinnacles sunset.





**ANTICLOCKWISE
FROM LEFT**

Melbourne Winter;
Lake Mountain evening;
Princes Pier sunrays;
Eildon morning mono.



With Peter
Manchester



Expert advice

There's no argument today that cameras, whether they're in phones, on top of helmets, or in drones, are designed to make taking photographs easier. One only has to take a look on social media to note the variety of images being taken. Many years ago, in order to take an "original" photograph some sort of training was required, either "one-on-one" with an experienced amateur or professional, or via short course photography classes like those offered by adult education, technical colleges or by joining a local camera club.

But, what are people doing these days to "skill themselves up" in their photo-taking abilities? Everybody who travels takes photographs, but what they do with them? Who knows! The majority of businesses take photographs for their records. The camera in the phone has "bred" a new society of photo takers and this has led to a belief that skilled training isn't necessary any more. It's an interesting societal attitude.

As a photography lecturer/educator, along with my frequent trips throughout Australia, I do find that there are a few good skilled educators of photography still around. And while there are excellent photographers they may not be excellent

photographic educators! The Australian Photographic Society has always been a good source for those searching for photographic teachers. Many are already teachers, lecturers, are in the photographic business, or are graphic designers, or photographers who have been published in books. Very often these experts are called upon to judge, offer advice, or run workshops and talks on many areas of the craft, to groups of people who have recognised a need to "make and create" so as to make a "good" photograph.

In July this year I was invited by APS member Eddie Fisher on behalf of the Central Australian Show Society in Alice Springs to judge entrants and advise the public on the nine sections of submitted photographs. Eddie and his small band of volunteers saw the need to have experienced photographers come and judge the photography of the Alice Springs community, so they could improve their skills. Other members to visit there have been Tina Dial, Brian Rope, John North, and John Hodgson – all experienced, internationally accredited judges who know how to advise people about any aspect of photography. Factors such as presentation, technique, image impact or "wow" factor, originality,

composition, storytelling ability and the so-called "decisive moment" all come into serious consideration as well.

As might be expected, the Alice Springs show entrants exhibited quite a few images of dogs, other animals, "selfies", sunset landscapes, historical memorabilia and trees! There was a tendency to overuse certain software plug-ins, and poor cropping was noticeable, as was a lack of understanding of what is required in a good monochrome print.

Agricultural shows give photographers probably one of the best resources for potential subjects and offer a challenge to photograph almost every aspect of life. Nearly every animal, flowers, dogs, and sideshow alleys are available as suitable subject material.

They all challenge photographers to think quickly, react quickly and examine everything "on show". As such, these shows are one of my favourite places to work in Australia. Acquiring expert advice in photography should not be seen as a negative, but a development in evolving your own creativity. The Australian Photographic Society has a bank of photographic educators ready to assist you. Please avail yourself of their hard-earned expertise! ☺

ABOVE
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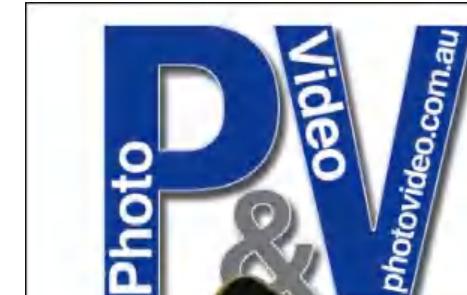


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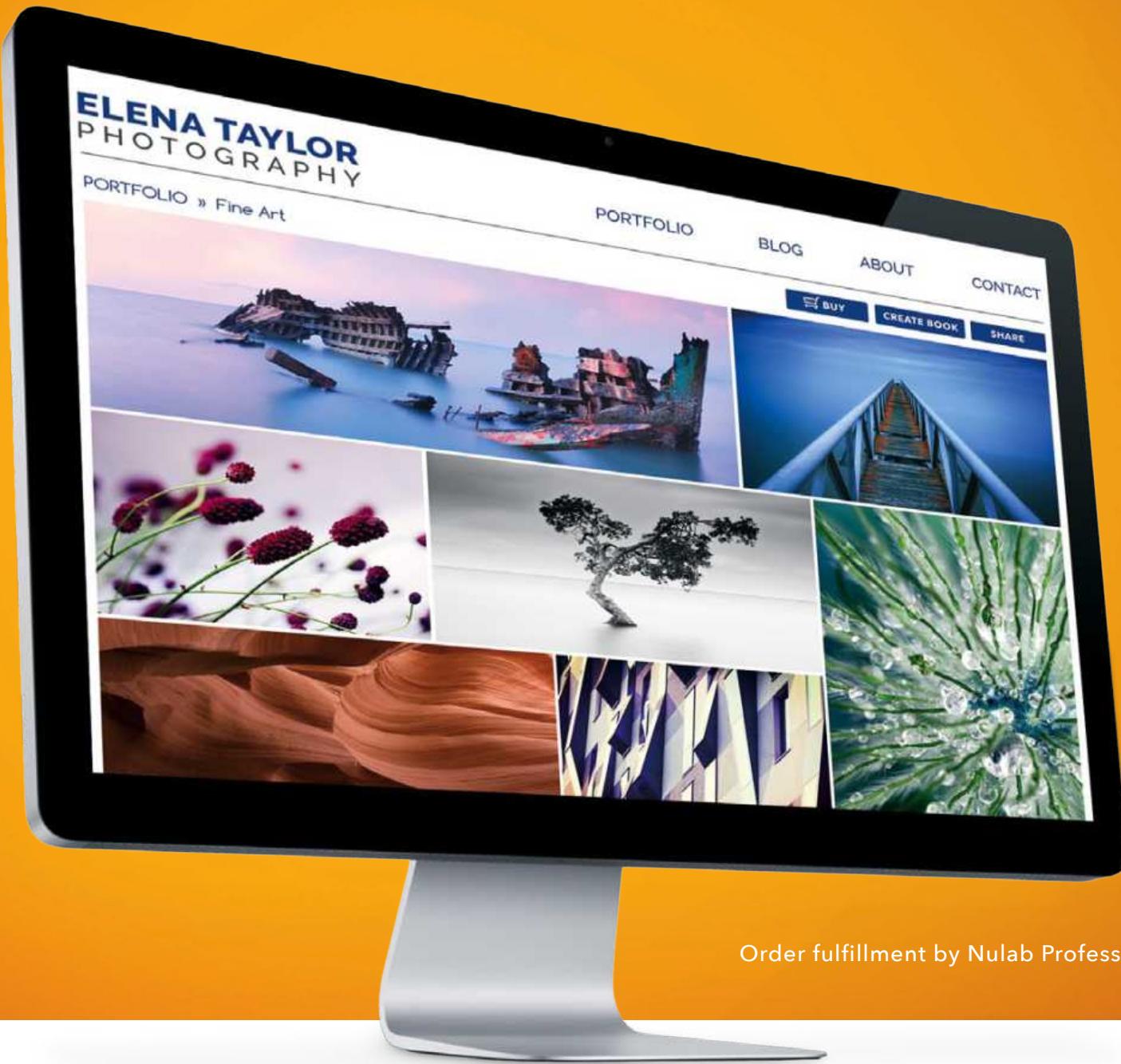
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THIS MONTH'S WINNER!

A tight squeeze

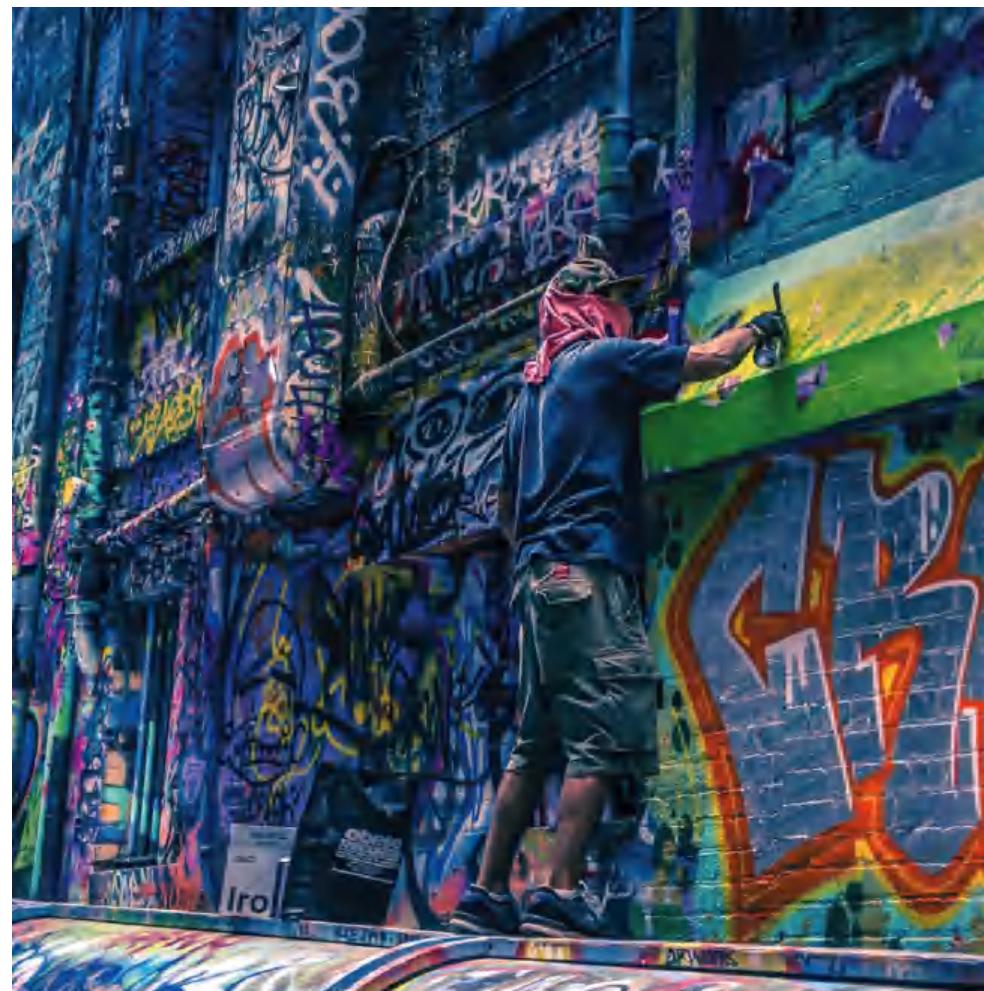
Evan Jeffery writes that he produced this interesting, raw portrait on a trip to the Victorian coastal town of Queenscliff, but unfortunately he doesn't offer any more detail. It gets me wondering who the woman was and what sort of place it was. The room itself appears quite barren and the chair slightly outmoded, as you might get in an institution. Though the woman is well groomed and nicely dressed, there is an awkwardness in her posture, mainly in the angle of her right arm and the leg supporting that arm. It sort of adds to the mystery. I like the lighting and exposure, even though her hair is starting to disappear into the shadows behind. The pose and format with so little space above her head and below her feet makes for a compressed feel as if she is being squeezed by the top and bottom of the frame. It would have been quite interesting to see the difference in feel if the subject were shot in the vertical format with less negative space at the sides and more space above and below. However, as is, I think this is a strong and unusual portrait.

SAIMA'S TIP: The sides or lines of the frame can be used to intensify the mood of an image and subject.

TITLE: Untitled

PHOTOGRAPHER: Evan Jeffery

DETAILS: Nikon D4, Sigma 35mm f/1.4 @ 35mm focal length, 1/80s @ f/1.4, ISO 400, natural window lighting.



Consider re-composing

Andrew Strates took this image on a day trip with his father. He writes: "We noticed this old tractor as we were going through a beech forest in a country town in Victoria. Dad pulled over for me to take some photos of this gem. I took a number of different pictures, but I think using the creative filter was best as it gave this dramatic effect which makes it interesting and unique. The cloudy day seemed to fit in with the mood. Had it been a sunny day I think the photo wouldn't have been as good." This sort of classic rusty – and rustic – piece of machinery is a popular photo subject. I like the mix of mono sky and coloured land. It looks like the filter has helped boost the colour. There are other more basic compositional techniques which would have given a dramatic effect as well. Firstly, you needed to get rid of the tree and bush background behind the tractor so that it had a clean, clear outline against the sky. Getting in closer, bending down and shooting upwards would have done this. Secondly, this shot is fairly straight on to the side of the tractor, which is a little boxy, following the line of the frame. Thankfully the lines of the fence and path add another plane to the scene. Another possibility is shooting the tractor more at an angle – maybe from further towards the front of the machine – which (combined with a low viewpoint) could be quite powerful. Then you could look at the best sort of filter to enhance the shot.



SAIMA'S TIP: When composing an image, look at how the main subject and any lines within the scene can work together with the lines of the frame to make angles and a dynamic composition.

TITLE: Rusty old tractor

PHOTOGRAPHER: Andrew Strates

DETAILS: Olympus PEN- EP5 @ 14mm focal length, 1/200s @ f/5.6, ISO 200.



Vibrance works

According to Rob Hughes, he stumbled across this street artist in Melbourne's CBD backstreets and he writes: "I was blown away by the mass of colour. There were dozens of artists there, and this one reminded me of some kind of anarchist, with the scarf over his face. But when I spoke with him, I couldn't have not been more wrong." Wow! You found a great location and subject matter, and the result you've produced is very much like an air-brush picture from the 1980s art stable. That colour is nice and punchy. I also particularly love the way the artist almost becomes a part of the 'art' work behind him. Shooting him basically from behind makes it look like a snap, albeit a good one. Asking him to participate in your own 'art' work by turning his face more towards the camera could have also made for an interesting and powerful portrait. I like the treatment you've given this image though – it's adventurous and dramatic. The use of the vibrance slider in post production was also a good touch.

SAIMA'S TIP: Using a vibrance slider will enhance the weaker colours, whereas saturation bumps up everything, with the result that the image can become unprintable.

TITLE: Painting the town Red....err Yellow...err Blu...

PHOTOGRAPHER: Rob Hughes

DETAILS: Canon EOS 6D, 40mm focal length, 1/100s @ f/4, ISO 100, edited in Lightroom, clarity and vibrance increased to give the shot a metallic feel.

Consider focus stacking

This was taken on Jannette Blennerhassett's kitchen table where she used desk lamps for lighting. She writes: "I had to ramp up the ISO to get a reasonable shutter speed and depth of field when I was using my macro lens. I am struggling with lighting with macro and I'd love some input as to how to get sharp images of small creatures like this grasshopper." It's stating the obvious to say those desk lamps aren't cutting it! The image is too dark. Possibly an easier option is to use natural daylight through a window and bounce light onto the scene with reflectors like white cards. As for getting sharp images, you need better depth of field. However, you're already shooting at f/36 and lenses can't produce an infinite depth of field. It may help to move back a few inches to get a slightly better depth of field. You could also take a more 'sideways' shot of the creature to get more of it in the same plane of focus. If you're really serious about getting the best macro images you could also consider a technique called 'focus stacking', where you take several shots at different points of focus (eg; head, shoulders, rear) and then merge them together in Photoshop. It's also possible to use layers in PS Elements to get the same result, but that is a little more fiddly.

SAIMA'S TIP: Keeping as much of a subject as you can in the same plane of focus will help reduce some of the lack of depth of field in macro photography.

TITLE: Grasshopper

PHOTOGRAPHER: Jannette Blennerhassett

DETAILS: Nikon D200, Tamron 90 mm f/2.8 lens, 1/160s @ f/36, ISO 1600, handheld, minor adjustments in Lightroom 4 (sharpening, contrast, shadows and cropping)



A good critique

Ian Bock was at Traralgon to give a talk to its camera club and he stayed the night. "Next morning I went out to the back paddock to photograph the sheep and cobwebs. This shot of a newborn lamb was the best, with the weak sun on the sheep's back and mist obscuring the distant trees. I'm not happy about the feet of the lamb's twin, but it is worse if they're cloned out." I love it when contributors have tried their own critique and have actually attempted to make changes, as Ian Bock has clearly done. The lighting and hence mood in this scene is soft and gentle, which adds to the wonderful bucolic subject matter: 'mother and child', nature, stillness, peace and harmony. This is the sort of subject and scene that painters loved so much in the past and this version definitely has that painterly feel, with details like the silvery hairs on the sheep's back nicely lit up. The good detail, soft, even lighting, mood, misty backdrop and subject matter tick a lot of boxes for a good image. Where this could go one better is if we could have got some eye contact with the mother rather than the top of her head. It might also have brought more of the twin into the scene and made it more of an item than just a set of legs, which would have then eliminated one source of your concern.

SAIMA'S TIP: Learning to critique an image is a valuable skill, and 'show-and-tell' forums at camera clubs are a good place to start learning it.

TITLE: New Born

PHOTOGRAPHER: Ian Bock

DETAILS: Pentax MX-1 @ 12mm focal length, 1/640s @ f/3.2, -0.3 EV, ISO 100, minimum levels adjustment and sharpening (and cloning out the umbilical cord).



Adjust white balance

Chris Brown writes: "Having just moved to Sydney, one of my first days out was spent relaxing in the Royal Botanical Gardens. This flower stood out as it was – the last perfect bloom I could see on the plant. However it was completely in the shade on a slightly breezy day so catching it at the right moment was the key." This really is one of the most perfectly symmetrical blooms I have seen, with no hints of damage or decay within those inner petals – a rare find! I could point out that the outer petals aren't absolutely perfectly shaped, but what a picky so-and-so I would have to be! You have filled the frame well with the bloom and there is a lot of good detail. However, while the lighting is even and the exposure is good, I do find the image a little cold tonally, a consequence of it being in the shade. Using the shade white balance could help reduce the coldness, present cleaner whites and add a little warmth.

SAIMA'S TIP: Different lighting situations change the colour and feel of an image, but by changing the White Balance you can control these effects.

TITLE: Fractal Bloom

PHOTOGRAPHER: Chris Brown

DETAILS: Nikon D40X @ 55mm focal length, 1/60s @ f/5.6, ISO 280.



Placement is key

Cheryl Speechley writes: "When visiting the Canadian Rockies in summer, we were lucky to see the still snow-capped peaks and the pristine lakes. Early one morning we drove a short distance from Jasper township to Pyramid and Patricia Lakes. The mist was just rising off the still water and the cloud reflections made a spectacular sight. I took this photo low to the ground to capture the foreground rocks and reeds with the mountains and clouds forming the background. The original photo was quite dark as it was still early in the day." While the composition is OK, the foreground is fairly average and even scruffy, while the main star is in second place far off in the distance. It's just a shame the foreground isn't a little more exciting. You could try darkening the image – which is quite possible since you suggest you lightened up the original – to reduce the overly bleached-looking effect of the foreground rocks and to sort out those much lighter clouds and sky

on the right. If you'd had a tripod, another option would have been to take a shot with a Neutral Density or ND filter with a long exposure. This could have given you more of a still mill-pond type effect with more impact from the reflection of the trees and mountains.

SAIMA'S TIP: When you go for the big picture with a wide-angle setting, all the elements in the scene have to compete for the viewer's interest, so the placement of the starring subject matter is key to its impact.

TITLE: Early Morning Patricia Lake

PHOTOGRAPHER: Cheryl Speechley

DETAILS: Canon 60D, Sigma 70-250mm Lens @ 18mm focal length, 1/400s @ f/8, ISO 800, handheld, shot in RAW, Adobe Lightroom 4 used to straighten, crop, adjust exposure, clarity and saturation.



Don't shoot fast

Ralph Holland says he has taken photos from this lookout on many occasions, when it's usually been hazy so that clarity has been an issue. However on this day, he says: "We did a quick detour en route to Mt Zero lookout and to my delight it was clearer than I'd seen in 30 years of visits. I had about a minute to take the photo as we were in a party and in a hurry. I love the parallel mountain ranges with Lake Bellfield in between, and the various shades of green. The clouds were an added bonus in contrast to the blue sky." This is a great almost bird's eye view of some spectacular scenery. While you have a wonderful scene with great undulating, jagged lines and some good shapes in those cloud formations, the issue in this image is the colour. There is definite overdose of blue, which this makes me wonder if your monitor needs some calibration since

you increased the blue saturation slightly. I would also suggest you crop as little as possible to avoid too much loss of image quality, which will become more obvious when you enlarge the image.

SAIMA'S TIP: When shooting static subject matter with wider apertures, a very high shutter speed is not necessary, especially if you end with a higher ISO as a consequence.

TITLE: Boroka Lookout – The Grampians, Victoria

PHOTOGRAPHER: Ralph Holland

DETAILS: Nikon D7000 @ 18mm focal length, 1/500s @ f/11, ISO 400, hand held, adjustments in Lightroom: crop, contrast, blacks, clarity, slight sharpen & noise reduction, slight increase in blue saturation.



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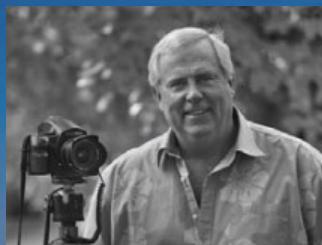


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